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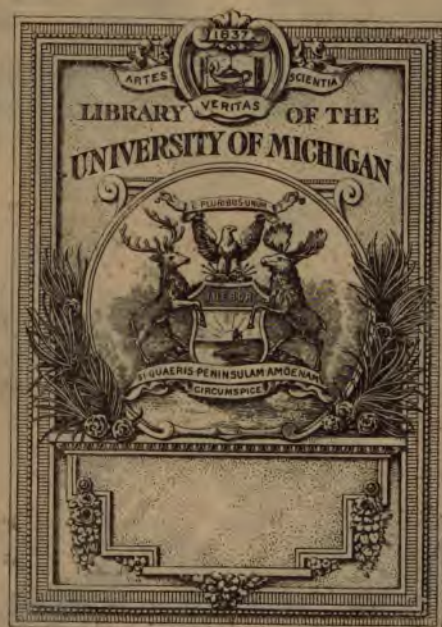
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SCIENCE AND
THE FAITH





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SCIENCE AND THE FAITH

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SCIENCE AND THE FAITH

ESSAYS ON APOLOGETIC SUBJECTS

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WITH AN INTRODUCTION

BY THE LATE

AUBREY L. MOORE, M.A.

HONORARY CANON OF CHRIST CHURCH, OXFORD
EXAMINING CHAPLAIN TO THE LORD BISHOP OF OXFORD
TUTOR OF KEBLE AND MAGDALEN COLLEGES

FOURTH EDITION

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TO THE RIGHT REVEREND FATHER IN GOD
JOHN FIELDER MACKARNESS,
LORD BISHOP OF OXFORD FROM 1870 TO 1888,
IN GRATEFUL ACKNOWLEDGMENT
OF
HIS UNVARYING PERSONAL KINDNESS,
AND
THE BREADTH OF HIS SYMPATHY
IN DAYS OF PERPLEXITY AND DISPUTE,
THIS VOLUME
IS, WITH HIS PERMISSION, DEDICATED
BY HIS LORDSHIP'S FAITHFUL SERVANT AND CHAPLAIN.

PREFATORY NOTE.

THE Essays contained in the present volume have all been written since 1883. I have to express to the Editor of the *Quarterly Review* my thanks for kindly allowing me to reprint Article III., and to the Editor of the *Guardian*, not only for similar permission with regard to the other reviews, but for the uniform courtesy and consideration he has shown me during the last five years.

AUBREY L. MOORE.

OXFORD,
Epiphany, 1889.

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INTRODUCTION.



IT is often taken for granted that there is a sort of common doctrine or theory of life known as Christianity, to which those who are English Churchmen add certain views peculiarly their own, while Roman Catholics require something more than either English Churchmen or Protestant dissenters are prepared to accept. It is, to my mind, a perfectly logical extension of this view to assume that there is a still more general body of doctrine, included under the name of Theism, to which those, who in any definite sense are called Christians, add the belief in the Divinity of Christ, and, either as a presupposition or as a corollary, a more or less complete acceptance of the doctrine of the Trinity. And there is no reason why this generalizing process should not be indefinitely extended.

Certainly I should be the last to deny the debt which our generation owes to Prof. T. H. Green and Dr. Martineau. Still less could any one, who had at heart the defence of the Faith of

Christ, undervalue the work of men like Prof. Milligan, Dr. Flint, Dr. R. W. Dale, and Dr. Bruce. Yet it seems to me impossible to defend Christianity on the basis of anything less than the whole of the Church's Creed. A rational defence of theism which shall maintain the Unity and Personality of God, apart from that which for eighteen centuries has been its intellectual safeguard, is no easy matter. Nor is it easier to defend the essentially social character of Christian morals and religion, on the basis of a theory of the Church which, in its most logical expression, formulates division and rests on individualism. It is not only that men are beginning to admit that there is no foundation for the Christian life but the Christian faith; it is that theism itself, "the easiest of all religions to get, and the hardest to keep," is tremblingly conscious of the fact that it must either "perfect itself" in Christianity, or be swept away by the rising flood of pantheism.

At all events, the subjects discussed in the present volume are approached from the point of view of one who, accepting the doctrinal position of the Catholic Church, believes that that position is not merely as defensible as any other religious position, but is more rational than all, in the sense that, while it includes what is true in others, it is able fearlessly to deal with difficulties, which to them are becoming greater as knowledge grows.

In its doctrine of the Trinity it holds the key to the metaphysical problem—How can God be One and yet Personal? while in its doctrine of the Incarnation, involving, as that does for Churchmen, the belief in a visible Divine society, the home of truth and grace and power, it explains and satisfies that craving after human brotherhood which is so marked a feature of our time.

The reviews are thus connected by their mode of treatment. They are connected also by their subject-matter, though some of the books reviewed were written in defence of Christianity, some from outside, and one even in a spirit of antagonism to it. No attempt, however, has been made to rewrite the reviews in the interests of literary unity. Something of mechanical uniformity would no doubt have been gained by doing so, and some apparent contradictions would have been removed. But the loss would have been greater than the gain. What contradictions there are in them, I should like to believe are due, not to any incoherence of thought, still less to any real change of principle, but to the difference between an earlier and a later statement by one, who is but gradually realizing the extent of the problems dealt with, and still more slowly learning the full application to them of the principles which were from the first assumed.

The most obvious instance of this is the contrast

between the Address on Evolution delivered at the Reading Church Congress in 1883, and the Articles on Darwinism published in the *Guardian* last year. The Congress speech is reprinted as an appendix, in deference to the wishes of some who found the briefer and cruder statement easier to follow than the more elaborate discussion. But though many thoughts and phrases are common to both, and the general attitude assumed is the same in both, I am conscious of real differences between them. It was not that a fuller knowledge of the subject made me less hopeful, or less willing to welcome evolution as true, but that, in the five years, I had learned caution, and was less ready to expect, or accept, a complete answer to a problem, of which as yet we hardly know the outlines.

I have, indeed, throughout assumed that, with all its supposed materialistic implications, and its undoubtedly anti-Christian associations, evolution marks a real step onwards in the search for truth, and therefore cannot be, at heart, opposed to the Faith of Christ. It has been the object of these reviews to help to disentangle evolution both from the materialism which has too often been identified with it, and from the agnosticism of some of its best known champions. Such a disentanglement must be a work of time. It is very slowly that men realize the logical fallacy of arguing that because Darwin is an agnostic, and Haeckel a

materialist, evolution must be responsible for both materialism and agnosticism. Yet they might just as well make evolution responsible for the Christianity of Dr. Asa Gray. Neither view is logically defensible; and yet it seems to me indisputably true that evolution is doing good work in destroying materialism, and is *so far* fighting on the side of Christianity.

The words *so far*, however, imply a limitation which it was never more necessary, and never less easy, to enforce, than in the present day. It is one thing to say that evolution is fatal to materialism; it is quite another to argue that therefore it can solve the problems of morals and religion. The desire for a premature synthesis, a theory which will at once account for all the facts, is by no means peculiar to those who would reconcile science and religion. Reason can no more admit a dualism, without history and without hope, between the physical and the moral order of the world, than it can stereotype the crude antithesis of mind and matter. And it is inevitable that a doctrine, which has already done so much, as evolution has, to unify knowledge, should be strained so as to cover the whole ground.

In one sense it must do so. For evolution is more than a doctrine, a theory, a fact. It is an atmosphere in which we of this day think and live. Darwinians and anti-Darwinians alike are under

its influence. The most uncompromising opponent of "a natural science of man" formulates his protest in biological terms. The phrases "adaptation to environment," and "survival of the fittest," have become a commonplace in the pulpit. And the whole aspect of apologetics is changing, partly indeed because the weapons of both defenders and assailants are different, but much more because the battle-field has shifted, or because—shall we say?—the mist has partly cleared away.

It is quite unimportant to discuss the question whether, for the modern world, evolution is to be traced back to Darwin or to Hegel; whether the metaphysical doctrine gave the impulse to the scientific, or whether science made real to the world at large what might else have been the monopoly of the philosophic few. It will hardly be denied that certain ideas characterize certain epochs, and that the study of one class of subjects tends to give a tone to all the closely inter-related parts of human knowledge. Nor will it be denied that the present age is the age of biological science, and that the dominant ideas of the day are those which have evolution for their watchword. But when we come to ask exactly what these ideas are, what are the ideas they superseded, what causes have led to the supersession, and still more, what is the net result of the change, and its bearing on problems which have not yet been consciously

3 under review,—there is likely to be a good deal of difference of opinion. Yet the line which separates the atmosphere of our day from that in which our fathers lived, is not less sharp, and certainly not less strange, than that which sometimes separates the white from the yellow in a London fog.

To understand the change which has so rapidly and imperceptibly passed over thought, and is not only revolutionizing science, but exercising a reflex influence, where it is least expected and least obvious, on morals, politics, religion, it is necessary to put in sharp contrast with one another, two views of the universe which, for the sake of convenience, we may contrast as the *mechanical* and the *organic*.

For more than two hundred years—that is to say, from the time of Bacon and Descartes to our own time—mechanism has dominated English thought. The reaction from mediævalism, showing itself first in the protest against final causes, resulted in a theory which, as Dr. Martineau says, we find it difficult to harmonize with any moral theory of life. Indeed its fear of the “rational” method led it, so far as possible, to expurgate reason from the world it proposed to interpret. It idealized mathematics. But mathematics, as Bacon is fond of telling us, is to be the goal, not the starting-point, of natural science.* Physics,

* “Nov. Org.,” I. xcvi., “Mathematica, quae philosophiam

astronomy, geology, chemistry, the inorganic sciences generally, were the sciences of the day; the sciences of organic life were in the background. Classificatory botany and zoology had their place, but the science of biology, as known to us, had yet to be discovered. When Cartesianism reached England and found a home in Cambridge, it meant, not the speculative philosophy which reached its last term in Spinozism, but mathematics and physics. And its triumph over culture, as represented by the dead languages, was symbolized by the fact that Isaac Barrow, "the best scholar in England," resigned the professorship of Greek in 1662, in order to devote himself to mathematics. The predominance of the mathematical over the classical tripos at Cambridge survives as a witness to this change of sentiment, while the wisdom of thus substituting new science for old culture, seemed to be proved, when a quarter of a century later Newton gave to the world his great discovery.

But this union of Cartesian with Baconian physics, and the mechanical conception of nature implied in it, had far-reaching consequences, which only slowly worked themselves out in different regions of thought.

1. It brought with it the idea of nature as a

naturalem terminare, non generare aut procreare debet." "*Nov. Org.*," II. vii., "*Optime autem cedit inquisitio naturalis quando physicum terminatur in mathematico.*"

vast and complicated machine, which science might take to pieces, and reconstruct in thought. Such a view, though Bacon from the first regarded it with suspicion as a guide to the interpretation of nature (cf. "Nov. Org.," I. lxvi.), did not at once seem inconsistent with Christian belief. Final causes were not denied, they were only banished, because the search for them was unproductive if not misleading, *tanquam virgo Deo consecrata non parit*. Nor was the existence of God denied. God was even a necessary complement of the machine theory, for "a design implied a Designer." The real *crux* of the theology of what was afterwards called Deism, was the question of *miracles*. Did the Maker of the machine sometimes alter the works? Had God left the world altogether to itself, or had He reserved to Himself the right of "ingress, egress and regress," however rarely He took advantage of it? The Bible plainly asserted the existence of both miracles and prophecy. The apologists defended, their opponents denied, the possibility, or at least the fact. To us, as we look back upon the controversy, the question of miracles and prophecy, in the deistic age, seems to have assumed an importance quite out of keeping with their position in the Christian revelation. But, as both those who attacked and those who defended knew, the whole question had been narrowed down to this point, and revelation itself was at stake.

And the consequence of this narrowing down of the subject was disastrous. The truth of God's immanence in the world had gone by default, and, as a consequence, His very existence was bound up with ideas of disorder, "interference," almost caprice. Even Bishop Butler, whose devotion to Aristotle saved him from many of the intellectual vices of his contemporaries, is not uninfluenced by the atmosphere in which he lived, and sometimes commits himself to statements which no one in the present day could accept. Of Paley this is far more obviously true. It is not the design argument, but Paley's *setting* of it, which is thoroughly deistic. What we have outgrown is not teleology, but the scientific theory, which, as the received theory of the day, Paley naturally took for granted. The apologists of the deistic age, who are often spoken of with little respect, were at least abreast of the thought of their day. And it is hard to blame them because the thought of their day is not the thought of ours.

2. Even more disastrous were the consequences of the mechanical conception of nature when transformed into a theory of knowledge. Bacon, who, as Harvey said of him, "wrote philosophy like a Lord Chancellor," put on one side the metaphysical question with a dogmatic assertion: "Veritas essendi et veritas cognoscendi idem sunt" ("De Aug.," I. i.). He had no doubt that

sense was the "janua intellectus" ("De Aug.," II. i.), and he assumes, almost in the words of Locke, that the mind is at first a "tabula rasa" ("Nov. Org.," I. cxv.). The problem of psychology, then, when it came to the front in Locke, was this:—Given simple ideas, the direct product of sensation and reflection, as the bricks of the house of knowledge, how can we build the house? From Locke to Berkeley, from Berkeley to Hume, who does not know the story? Given the bricks, and "association" for mortar, the house was built, only for its builders to discover that it was not real, only a dolls' house, or a fairy palace, with no guaranteed relation to that "external world," that "order of nature," of which it was supposed to be the copy, and which it was the object of knowledge to know. At last the secret was out. "All events seem entirely loose and separate," said Hume, fasten them together as you will. The haunting question, "How then can knowledge be real? What justifies experience?" was not only unanswered, in the shape in which it had been asked by English empiricism, it was unanswerable. Locke was only a deist; Hume was called an atheist. Locke only maintained a modified sensationalism; Hume made Locke's teaching consistent with itself, and formulated philosophical scepticism. A few clear-sighted men, like Stillingfleet, Bishop of Worcester, had seen what was implicit in Locke's

premises, but the world at large had to wait for the historical development. In England the philosophy of Locke reached its last term in Hume. In France it found a brilliant propagandist in Voltaire, and became naturalised in the Encyclopædists. In Germany English deism, as the older rationalism, superseded pietism, and, in the so-called *Aufklärung*, undermined what remained of reality in the Lutheran religion. For in spite of the supposed antagonism between faith and reason, a theory which destroys either, is ultimately fatal to both.

3. But the mechanical theory could not be confined to the speculative region, and affect only science and philosophy. It had its direct consequences in ethics and politics. Just as its theory of the world rests on an atomistic metaphysic, which destroys knowledge, so its metaphysic of ethics and politics is an individualism fatal alike, when logically developed, to morality and the State. But here again the consequences were not at once apparent. If the world was a concourse of atoms, and yet somehow was a cosmos, why should not a state still be a state though it, too, was a concourse of separate individuals? Why should not a federated union be as good as any other union? Hobbes' statement of the *bellum omnium inter omnes* was startling, no doubt. But the state of war leads on to the social compact, and since "covenants

without the sword are but words, and of no strength to secure a man at all," it is to the interest of all to have an absolute monarch.

We are so accustomed to treat society as a growth, and authority as impossible if it rests on force, that it is hard for us to think ourselves back into the atmosphere of the seventeenth century. The idea that a social chaos can be reduced to order by the superimposition of an external power seems wildly chimerical. Yet Hobbes might have claimed a respectable, though dangerous, parentage for his theory. It was not an unheard of thing for papal theologians to undermine the foundations of civil society and social order, so as to build the papacy upon the ruins. Sometimes the sophistic theory of society was openly revived,* or Cain and Nimrod were represented as its founders, so that men, panic-struck by its instability, or shocked at the wickedness of its origin, might more readily welcome the theory that Christ had committed two swords to the successors of S. Peter, with the right of handing on the sword of temporal power to whom they would.

Strangely enough the same theory reappears in that theological system which exercised such a fascination over England in the seventeenth and early part of the eighteenth centuries, a system which was rationalistic without being rational,

* See Poole's "Illustrations of Mediæval Thought," pp. 231, 232.

which saw in the Nicene Creed only a *frigida cantilena*, which believed in absolute decrees, and "positive" morality, and a mechanical discipline of which the spirit was derived from the Old Testament and the letter from the New. The one great personality of the non-Catholic reformation was John Calvin. Lutheranism found itself powerless to control the disintegrating forces which Luther had called into activity. The only real rival to the Pope of Rome, in the religious region, was the "Pope" of Geneva. And the Puritan claimed for his discipline a divine authority which the most enthusiastic "Church and State man" could not claim for Acts of Uniformity. His theory of a Church was thus the analogue of Hobbes' theory of the State. It sought to neutralize confusion by enforcing a purely mechanical uniformity which it mistook for unity.

As the papacy had struggled against and controlled the anarchical forces of the mediæval world, so the Stuart absolutism on the one side, and the "Geneva platform" on the other, struggled with the individualism which, whether in the State or in religion, threatened the social order. But the age of toleration came, as it was bound to come, and persecution went out of fashion. The days when witches and socialists and heretics were put to death by the State; when Calvin, with the approval of Melancthon, burnt Servetus for being too

logical ; when Pilgrim Fathers flayed a Jew alive because he would not be converted,—all this the world had outgrown. But it was the toleration of indifference, not of charity, which men had learned. Individualism had triumphed over discipline, and private judgment over truth.

4. It is needless to show how in ethics the same thing had happened. The unselfishness of the gospel morality was in sharp contrast with the low standard of morals. But as the existence of a state or church could be defended, or apologised for, in the interests of the individual, so it seemed possible to justify unselfish conduct by an appeal to selfishness. It was the age of prudential morality and general utilitarianism ; not the “ nobly spurious ” utilitarianism of J. S. Mill, which saves morality at the price of consistency, but the undisguised selfishness of earlier days. Even Bishop Butler, in vindicating the rightful supremacy of conscience, is obliged, as it were, to “ gild the pill,” by assuring his hearers that benevolence is the true self-love, and in maintaining principles actually inconsistent with, and ultimately subversive of, the ideas of his day, only dares to contend for a minimum, for probability rather than truth, in the hope of persuading men to believe that, whether Christianity is true or not, “ it is not so clear a case, that there is nothing in it.” But the ordinary theological moralist of the eighteenth century was

content with a lower line. The "two sovereign masters," which Bentham afterwards found in pleasure and pain, were heaven and hell, and he proceeded to justify a life of virtue as a reasonably promising speculation in this life, and a safe investment for the next.

It will be seen that these views in science, in philosophy, in politics, in ethics and religion, all held together. There is one word which gathers up the thought of this epoch, and that is *atomism*. From the first, Bacon had felt his kinship with Leucippus and Democritus. They seemed to have penetrated farther into nature than any of the ancients ("Nov. Org.," I., Aph. li.). They were the very antithesis to the "rational" school of "Antichrist," *i.e.* Aristotle. They knew that what was real was simply the atoms, and the way in which the atoms grouped themselves was a matter of convention. Hobbes in his theory of the State and his selfish theory of morals, Locke with his theory of sensation, of primary and secondary qualities, of ideas as *εἶδωλα ἑξωθεν προσίοντα*, Hume with his "loose and separate events," strung together by "custom,"—these all affiliated themselves naturally, through Lucretius and Epicurus and the Sophists, to the same stock. Hostile theological critics saw, in all this, materialism or atheism, a theory fatal to knowledge, to morals, to the State. And the charge was indignantly denied.* It was

* As for instance by Cudworth, "Intell. System," Bk. i. ch. i.,

true or false according as people judged the theory by the intention of the teachers, or the result of their teaching.

Twenty years ago, at Belfast, Prof. Tyndall, by the help of Lange's "History of Materialism," discovered that modern empirical science was atomistic, and its father the Greek Democritus. From Democritus to Epicurus, from Epicurus to Lucretius, from Lucretius—a long interval—to Giordano Bruno, from Bruno to Bacon and Descartes, from Descartes to Newton, from Newton to Sir William Thompson—this is the atomistic succession. What Bacon openly professed, what for a century and more theologians had flung in the teeth of science, Prof. Tyndall at last accepts and proclaims as a discovery. The world is a fortuitous concourse of atoms, or of atoms aggregated by a blind mechanical force—this is the metaphysical doctrine of the last two centuries, which underlies their theory of nature, of knowledge, of society, of ethics, of religion. Everywhere there is aggregation and separation, mechanical composition and chemical combination, and life and growth must be explained in terms of these. A more fearlessly logical age would have denied the very fact of growth in the interests of mechanism.

who argues that Leucippus, and Democritus, and Protagoras, could not have been the founders of "the atomistical philosophy," *because they were atheists.*

φύσις οὐδενός ἐστιν ἀπάντων
 θνητῶν, οὐδέ τις οὐλομένου θανάτοιο τελευτή.
 ἀλλὰ μόνον μίξις τε διὰλλαγίς τε μιγέντων
 ἐστί, φύσις δ' ἐπὶ τοῖς ὀνομάζεται ἀνθρώποισιν.

But by this time atomism had ceased to be an adequate metaphysic even for the inorganic sciences. The "atoms" were discovered to be less important and less real than the relations which were found to exist among them. The conception of "law" had become prominent, and was monopolizing scientific interest.* Atomism had admitted more than "the thin edge of the wedge." For with "law" reappeared the "rational" element, which Bacon would have exorcised. However interesting, therefore, a rehabilitation of atomism might be to a physicist even of the nineteenth century, it came too late. Science was already making a new departure in the almost untrodden land of biology. It is elaborating a theory big with great results in every region of knowledge. While Tyndall is talking, Darwin is working. Evolution is leavening scientific thought. Herbert Spencer, by formulating great laws of development, which already exclude the atomistic conception, is hewing at the

* "The general laws of chemical combination, announced by Mr. Dalton, are truths," says Dr. Whewell, "of the highest importance in the science, and are now nowhere contested; but the view of matter as constituted of *atoms*, which he has employed in conveying those laws, and in expressing his opinion of their cause, is neither so important nor so certain."—"Hist. of Ind. Sc.," vol. iii. p. 145.

branch on which he himself is seated. Mechanism is giving way to the organic view. New categories of thought are appearing, a new terminology, new methods, new sciences, new views of old truths, new ideas of what science aims at, new knowledge of what all science pre-supposes. The unity which we now demand, whether in theory or life, is no longer the pseudo-unity of external arrangement as in a machine, but the inward unity of a living whole. The power which holds all things together must be immanent and omnipresent. Against Hume's "Events seem entirely loose and separate," faggots bound in bundles by custom and association, we set the view that—

"Nothing in this world is single;
All things, by a law Divine,
In one another's being mingle."

And the old discarded final causes are coming back under the name of "the wider teleology," to explain the rational unity of the world. For any one to talk of "a fortuitous concourse of atoms," as the older men of science did not hesitate to do, is simply to proclaim himself behind the age.

The story is told of Kepler that on one occasion the astronomer had come down late to supper, and his wife, who was something of a shrew, took him to task for keeping her waiting. He excused himself by telling her that he had been so absorbed in the theory of "the fortuitous concourse of atoms," that

he had forgotten all about her salad. When Katherine asked for an explanation of the theory, he replied, "Suppose that from all eternity there had been flying about atoms of vinegar, and atoms of oil, and atoms of lettuce, you perceive that in time we might have a salad." "Ay, ay," said his wife, "all that might be ; but you wouldn't get one so nicely dressed as this is" (Bethune's "Life of Kepler").

The criticism, if not rigorously scientific, touches the point. It will never be possible absolutely to deny that the world is due to a con-course of atoms, or to prove the counter rational theory as necessarily true. But the fact which remains with us is that, the greater and more numerous the apparent fitnesses and adaptations in nature are, the more improbable any but a rational theory becomes for the untrained mind, and still more for trained and disciplined thinkers. In his Essay on theism, J. S. Mill came to the conclusion that, in the present state of our knowledge, "the adaptations in nature afford a large balance of probability in favour of creation by intelligence." But he adds that there is a certain "theory on which attention has been greatly fixed by recent speculation," which is based on the principle of "the survival of the fittest," and which, "if admitted, would seriously affect the argument," though at present "all that can be said is, that the theory is not so absurd as it looks" (pp. 172-175).

Eighteen years have transformed this interesting speculation into a received scientific doctrine, and the "serious effect" it has had upon the argument is this, that while, in the older treatment of the question, design in nature was admitted in theory though ignored in practice, in the present day design in nature, even when denied in theory, is admitted at every point in practice. Mr. Lewes' well-known pæan over the discomfiture of teleology is therefore something premature, and for an evolutionist, suicidal. What is really destroyed by evolution is the deistic theory which made God a great Architect. Mr. Lewes would probably have been surprised to learn that his criticism had been anticipated by a theologian of the fourth century, the great S. Athanasius, who attributes to the heathen the very view which Mr. Lewes assigns to the Christians, and argues against it that the God of the Christians is a Creator not a Carpenter (*κτίστης οὐ τεχνίτης*). The "Great Architect" theory in theology is, indeed, the analogue of the *emboîtement* theory in science. Both were invented when mechanism dominated thought, and we have outgrown both.

As the Baconian and Cartesian physics marked the protest of the modern world against scholastic Aristotelianism, so evolution marks the transition from the *mechanical* to the *organic* view of the universe. How rapid has been the growth of

biological science, which Darwin ("Life and Letters," vol. i. p. 4) speaks of as "a science wholly neglected in England in the last century," was well shown in the *Times* review of the "Encyclopædia Britannica" (December 11th, 1888). In the last edition of that work, published the year after the "Origin of Species," two lines were thought enough to devote to "biology," those two lines containing the interesting piece of information that the term was "introduced by Treviranus of Bremen in place of physiology to signify the science of life." And now we have a treatise by Professor Huxley of two and twenty columns, and a supplementary treatise of some twelve columns more by Mr. Thiselton Dyer, on biology in the vegetable kingdom.

It is more difficult to say what the change from the mechanical to the organic view of nature implies. But in the broad contrast between the two views which divided the ancient world, it means for us a return to Aristotelianism from the poverty-stricken philosophy of the deistic epoch. The old materialism is moribund. The "positivist" position is being undermined by evolution. The more speculative scientific men, like Prof. Fiske, have already discovered their sympathy with S. Athanasius. Our modes of thought, indeed whether as shown in science or metaphysics, are prevailing and increasingly Greek. We are be-

coming metaphysical in spite of ourselves. And metaphysics, as we know, leads on to theology.

The late Rector of Lincoln, Mr. Mark Pattison, who had trained himself in the latter years of his life to look at Oxford thought from the point of view of an outsider, and who, as a looker-on, often saw more of the game than those who were the players, tells us that he saw, from the first, the danger of the abandonment of Mill and nominalism by Prof. Green, and attributed it to "a certain puzzle-headedness on the part of the professor," that he did not see that the churchmen would "carry off his honey to their hive." That is to say, Mr. Pattison saw that to abandon atomism was inevitably to reinforce "sacerdotalism;" and, though he did not credit a "staunch Liberal" like Prof. Green with a conscious desire to do such a disservice to mankind, he looked forward with gloomy foreboding to a result, for which many have reason to thank God.

His fears have been abundantly justified, both in morals and religion. Any one who now defended the hedonism of the last century would be scouted. Individualism is recognized as the antithesis of a true individuality, and the common enemy of all earnest-minded people. We all know now that we belong to a "social organism," and though we may not be very sure what that means, we are clear that it somehow puts selfishness out of court. Compe-

tition, and *laissez faire*, and "Devil take the hindmost," belong to the old political economy, the "dismal science," as Carlyle called it, which thought to isolate the phenomena of wealth and treat man as a money-making animal. We are not all agreed as to how we are to raise the masses, and limit competition, and break down the "sweating system," and teach the dignity of labour, and the value of human life ; but we are all agreed that it has got to be done, and that the responsibility for doing it rests with all, because, somehow and for some reason or other, we are "members one of another."

And the change in popular views of Christianity, whatever be its relation to the change which is passing over science and metaphysics, over ethics and politics, whether we think of it as cause or effect, or recognize in all joint effects of a cause which lies behind, is equally remarkable. The last half-century has seen the transition from Protestantism to Catholicism, by which we do not mean the abandonment of the principles of the English Reformation, but a change in our way of looking at things. People who have least sympathy with the change have most difficulty in explaining, what they look upon not as a "survival," but as a sudden recrudescence of mediævalism. Here are men in the nineteenth century actually expressing a belief in a divine Society, and a supernatural Presence

in our midst, a brotherhood in which men become members of an organic whole by sharing in a common Life, a service of man which is the natural and spontaneous outcome of the service of God. It is no mere exchange of one set of opinions for another. It claims to be a breathing of new life into old truths, the recovery of a rightful heritage. It is very hard to explain it as a mere retreat, or a refusal to face unpleasant facts, for it is earnest, vigorous, hopeful, aggressive. It proclaims war against individualism; it is even claimed as socialistic; it is "in touch with" every new movement for the good of man; and yet at the heart of all it holds clear and true to the Incarnation and the Sacraments. Its ideal is unity, the unity of a visible organized society, which is as far removed from the mechanical uniformity of Rome or Geneva as from the formulated disunion of modern Congregationalism.

Contrasting, then, the atmosphere in which we live with that which we have passed beyond, two things seem obvious.

First, that it is no use furbishing up old weapons which have done their work. There is a mischievous saying that no argument is worn out till it has been answered. But an argument may be antiquated and useless, either because it has done its work, or because the work, which it was constructed to do, has no longer to be done. Bishop

Butler's argument against deism is a good instance of both possibilities. It was unanswered and unanswerable. It forced men into a dilemma. Either they must accept Christianity, or abandon the belief in God, as the Author of nature. One who starts with the deistic assumptions of the past generation becomes the positivist or the agnostic of this, according as his temper is dogmatic or critical. Bishop Butler's argument, then, did its work, and though his method is of permanent value, his arguments are no longer available, as certainly he himself would have been the first to allow. Neither can we avail ourselves of Paley's arguments, though for rather a different reason. His argument also did its work for the age in which it was constructed. It assumed the facts of nature, as then known, and the theory which co-ordinated them. But it was steeped in mechanism, and, by association at all events, suggested that deistic view of the relation of God to the world which is so impossible for us. All honour to those who would do for our age what Paley did for his. Only it must be done with a full and free appreciation of the advance which has been made in our knowledge of nature, and of the change which has passed over the preconceptions with which we approach the study of it.

Secondly, Christianity ought to be able to take hold of and claim and carry forward the new truth

and the higher morality of the present time, instead of enlisting both against itself. On the one side we see a real love of man as man, on the other an earnest search for truth and a fearless devotion to it. And these are appealed to against Christianity. Yet attacks, like those of Mr. Cotter Morison and Mr. Bradlaugh, would lose all their point if it were not possible for them to point back to a time when Christianity was selfish and individualistic, and triumphantly to contrast the best non-religious morality of to-day, not indeed with the best religious morality of to-day, but with the religious morality of yesterday. They are content to ignore the fact that the change, which shows itself in these attacks, is just as strongly shown in the defence. No intelligent Christian of to-day would dream of abstracting the service of God from the service of man. For the service of God includes both, or it is not Christian. The same is true of the objection that, while Christianity is selfish because it appeals to the rewards and punishments of a future world, non-Christian ethical teaching, at least in its noblest form, holds that virtue is its own reward. And we are asked, which is the most Christlike, a selfish Christian or an unselfish unbeliever? To which it may be enough to reply that there is no doubt a good deal to be said for the unselfish unbeliever, but there is nothing to be said for the selfish Christian. If,

therefore, any comparison is to be instituted, it must be between the unselfish Christian and the unselfish unbeliever. It is perhaps well to add that, except in novels, self-denying love for others is not the monopoly of unbelievers, nor are all Christians *ipso facto* selfish, and narrow-minded, and individualistic.

With regard to the assimilation of new truth in science and criticism and other branches of knowledge, the matter is more complicated. The assumption that ignorance and insolence go together, has a good deal of justification in experience. And so men come to judge of the worth of results, not always fairly, by the tone of the writer; and for one critic who believes in "the hallowing of criticism," there are many who betray little reverence and much of the mere *amor novitatis*, the desire to be brilliant, or original, or at least paradoxical, which barely conceals a self-love not identical with benevolence. So in science. It is impossible to mistake the tone and temper of Charles Darwin, or to fail to admire his reverent love of truth even in the most trivial details of his study. But it is equally impossible to misunderstand the defiant tone of Haeckel, and the arrogance of those who, being masters in one department of knowledge, assume the right to dogmatize in all. And Christianity is bound to wage war against unreality, superficiality, mere

self-assertion. They are its enemies, because they are the enemies of truth. Moreover, evolution came before the world with a kind of materialistic *imprimatur*. It was eagerly caught at, *not* indeed by Darwin, who tells us that he "never published a word directly against religion or the clergy" ("Life and Letters," ii. 289), but by Lewes and Huxley and others, for use against the faith of Christ; and it is only gradually freeing itself from such associations. It is no wonder, then, that Christians saw in it only a new weapon in the hands of the enemy, and sought rather to destroy than to appropriate it.

The last few years have witnessed a remarkable change in this matter. It was a significant fact that the *Guardian* was willing to take the responsibility of articles which did not attempt to conceal the fact that evolution was an established scientific doctrine, or the belief that it might be met as a friend and not as a foe. But there is much more to come. Evolution cannot stop short where it is. The comparative method must be applied faithfully, and rigorously, and patiently, to the reason and the conscience, and the will, as well as to the bodily structure. Such an application is hardly yet attempted. As a science it has not yet reached the embryo stage. Mr. Romanes' recent volume on "Mental Evolution in Man," may indeed be welcomed as a first instalment. Its avowed object is to show that there is only a difference of

degree and not of kind between human and brute psychology ; but its actual result is to express with a scientific precision—which would have been more valuable if the writer had not adopted a terminology and a metaphysic which we have almost outgrown—the uniqueness of what is properly called reason and speech, as contrasted with the foreshadowings of both in non-human animals, and in man himself before he rises to the dignity of his birthright. The analysis may be true or false. We may or may not be willing to draw the line as Mr. Romanes draws it ; we may accept, or reject, or recast his view of “ideation,” but at all events we must recognize the fact that it is a movement in the right direction. And even if the attempt had been made by one who, unlike Mr. Romanes, is an opponent of Christianity, it would still have been necessary to remind ourselves of a fact, which the controversy with Darwinism ought to have taught us, that the truth or falsity of a theory is not safely to be judged by the avowed attitude of its champions towards the Faith of Christ.

The organic view of nature, however, while it marks a definite advance on the mechanical, and is, as I have said, *so far* Christian, by no means implies all that some of its enthusiastic admirers claim for it. A Christian apologist would be false to his trust, and false to himself, if he assumed that

evolution carried with it the Christian position. Not only will the moral struggle with sin, and self-assertion, and the practical materialism of a self-indulgent age go on to the end ; the intellectual battle is not yet won. The field of controversy has changed. The combatants must henceforth fight upon higher ground, and in a purer air. Christianity is, indeed, committed to no theory of the universe. It can use all theories, while it commits itself to none. But it is committed to a belief which evolution, as at present understood, is unwilling or rather unable to justify, the belief, viz., that God is a Personal Being, and in His innermost nature a God of Love, that the world is a moral world, and the goal of its movement the triumph of righteousness. This is the assumption of the moral nature, and a truth confirmed to the Church by the Christian revelation. But if evolution were the last word of reason, the Christian must either give up this belief, and the hope which rests upon it, and substitute a pantheistic theory for religion, or he must abandon the rational struggle and admit a hopeless antagonism between faith and reason. And he can do neither, and feels called upon to do neither. It is his belief in progress, and his knowledge gained from experience, which justify him in saying that evolution cannot be the last word, that there are regions of thought and life which as yet are unrationalized and unex-

plained, facts which are not less facts because they are not soluble in a theory which has explained so much. There is the same attempt now to squeeze the facts of morals and religion into biological categories as there was in an earlier age to squeeze the facts of life and growth into the categories of physics. It was inevitable that the attempt should be made, and that some people should even be hopeful of success. The popularity of Prof. H. Drummond's book shows how gladly the uncritical public welcomes the attempt when avowedly made in the interests of religion and by a writer of deep religious conviction. Prof. Drummond would be surprised to be called a pantheist, but it is only by an inconsistency of reasoning that he is saved from it. Herbert Spencer repudiates the charge of pantheism, as he does that of theism and atheism. But his agnosticism is only agnostic with regard to the God of religion. In all other respects he is a modern gnostic, the object of knowledge being "the Unknowable everywhere manifested," which has neither beginning nor end. He offers, in fact, the knowable for the man of science, and the (as yet) unknown, as a fringe of mystery round it, to serve as an object of worship for the man of faith. The man of faith, perhaps, comes off badly in this division, but then, from the gnostic point of view, he is an inferior animal to whom only sufficient concession must be made to keep him quiet.

There is, of course, a Christian sense in which the world may be spoken of as "the living garment of God." But when the writer of the *Essay on Man* tells us that—

"All are but parts of one stupendous whole,
Whose body nature is, and God the soul"—

we are not surprised that, in a deistic age, he was charged with materialism, for what, in our day, would more naturally be called pantheism. The immanence of God in the world is, indeed, an essential part of the Christian revelation, and was a commonplace of Christian theology, till the machine theory was invented. It is only by the wildest display of ignorance that men are able to show that the doctrine of immanence was the teaching of the Greek, not of the Latin, Fathers, of S. Athanasius, not of S. Augustine. The scholastic theology, which is described by Bishop Hampden as "a system of theism which trembled on the verge of pantheism," certainly did not ignore the truth which the modern world, with its organic view of nature and man, is yearning for. But neither did it lose sight of the other truth which in the reaction from deism is in danger of being lost, the truth that God who is everywhere present in the world "upholding all things by the word of His power," "in Whom we live and move and have our being," is also distinct from the world ; including it, not included by it.

This, then, is the battle-ground for our day. We welcome all that evolution has done to destroy the old materialism, with its mechanical theories and its correlated atheism, but the battle of personality, the personality of man and God, has to be fought out. The true view of human personality, as Hegel tells us in a remarkable passage,* has come to us through Christianity, and is unknown outside what we call revelation. It has come as the counterpart of the truth that God is a Personal Being, for whose love every human soul has an infinite value. But here, too, we have "to *know* the truth which is freely given us of God," and it is often by losing a truth that reason finds it. It was not all loss the attempt to express the laws of life and growth in the language of mechanics. As long as "vital force" was conceived of as something *sui generis*, unique not only in its nature but in its working, and different from all else that was known as force, so long as there were two chemistries, one for the inorganic, the other for organized beings, life was naturally thought of as a mere disturbing cause in the reign of law. And the result was paralyzing in the biological region. *Nemo in aliquâ re rem feliciter perscrutatur*. It was not till the phenomena of life and growth had been forced into an impossible conformity with the laws of physics that the real difference was understood.

* Quoted in J. H. Stirling's "Philosophy of Law," p. 27.

Then the new biology arose, and the tables were turned. Physics, which had tried in vain to absorb the sciences of life, are now transformed by them. Lyell's "Principles of Geology" marked the first victory of biology in regions other than its own.

Here then are, as Bacon would say, our "grounds of hope for the future." If the Christian's first "ground of hope" is God's promise, *principium sumendum a Deo*, the experience of the past is, to say the least, reassuring. In the age of mechanism morality was prevailingly hedonistic. The will was a thing pushed or pulled by forces called "motives," and necessarily followed the line of least resistance. If the forces had not been so complicated, it would have been possible to foretell men's actions with mathematical certainty. *Nous avons changé tout cela.* We have learned to put organism in place of mechanism. And morals and religion have got to be fitted into their new place. We are told not to think of them as mechanical products; they are not *made*, they *grow*. And to this fruitful conception of *growth*, which has performed such wonders in biology, and thrown back its light on the inorganic sciences, we are asked to sacrifice that which we fondly imagined was man's greatness, his free will, his personal responsibility, his moral relation with a personal God. Free will, we are told, is a venerable illusion, responsibility the privilege of being punished, the idea of a personal God an-

thropomorphism. We do not find these things in nature, therefore they cannot be real in man. We turn to Mr. Herbert Spencer's "Data of Ethics," or to the far stronger and more vigorous "Science of Ethics," by Mr. Leslie Stephen, and we put them down with the feeling that ethical science forced into biological moulds is strangely like biology treated as a department of physics. That society is an "organism" is a fruitful metaphor, but it is a metaphor after all ; and ethics without free will is like the play of "Hamlet" with the Prince of Denmark left out ; and we turn away with the uncomfortable suspicion that a theory, which has to declare illusory the facts which it set out to explain, cannot be finally accepted as true. Our age is too scientific to admire the courage of those who say, *Tant pis pour les faits*.

The chaos, in which moral philosophy now lies, will not be reduced to a cosmos by treating ethics as a department of biology, however much the attempt may conduce to the final result. A true moral science must explain and not explain away personality. For if purpose can be ousted from nature, it cannot be ousted from man. We must have, what we have not yet, a *rationale* of moral choice. Then we may hope to see the mechanical, the organic, and the moral views of the world and man in their reciprocal relations. And just as when biology threw back its light on the inorganic

sciences, it rendered the atomistic view impossible by showing that "law" was a rational conception, so a true moral science will perhaps some day throw back its light on biology, and show that its laws are moral too. At all events, the whole force of evolution directs our glance forward. *Χρὴ τέλος ὁρᾶν* is its motto. It is only the "dead hand" of the old deism which makes man still explain things by their first beginnings. Every thing *is* that which it may become, not that out of which it came. Its explanation lies neither behind it, as materialism teaches, nor within it, as pantheism would have us believe, but beyond it and above it, in a moral order gathered up into a Moral Being.

"And so the whole round world is every way
Bound by gold chains about the feet of God."

I.

NATURAL LAW IN THE SPIRITUAL WORLD.*

IT has been said that if a man in the present day were to write down and publish in a readable and attractive form the most popular ideas of the age, he would be worshipped in his own generation and forgotten in the next. We are very far from saying that this is what Prof. Drummond has done. No one can deny that "Natural Law in the Spiritual World" is a remarkable book—a book full of deep and original, though sometimes fantastic, thoughts, and written by one who is nothing if he is not a Christian missionary. But, for all that, we are inclined to think that it is not really a great book, or one which will hold any permanent place in the history of apologetics. The great popularity which it has attained, and which is out of all proportion to its intrinsic value, is due, we believe, in a very large measure to the fact that it professes

* "Natural Law in the Spiritual World." By Henry Drummond, F.R.S.E., F.G.S. London, 1884. The references are to the eleventh edition.

to supply what is, just for the moment, a very real want. The Christian world wants to be scientific; Christians would like something more than a mere *modus vivendi* with men of science. A division of territory has been tried and failed; a compromise is eminently unsatisfactory. But here is a book in which men find what they take for granted is the Christian faith, actually phrased in the language of physical science. An age with evolution on the brain is not likely to stop and ask, Is evolution true? Does its most ardent scientific defender imagine that the form which the doctrine now presents is final? and if *not*, is it a wise thing for a Christian apologist to rest eternal truths on such a shifting ground? But the curious thing is that the extravagant praises which have been lavished on this book have blinded men to the fact that the Christianity which fits in so conveniently with Prof. Drummond's scientific framework is not the Christianity of the Bible or of the Catholic Church.

Our object, in the present review, is not to give an account of the book before us. It is a book which should be read, not only for its great suggestiveness and its deep spiritual earnestness, but because it is a brilliant example of a radically false method, too frequently adopted by modern apologists. Books of a similar character, but with less literary beauty and scientific knowledge, are appearing every day. We find in them the same glorifica-

tion of Darwin and Spencer, the same assumption of the infallibility of modern scientific theories, the same tendency to drag theology down to science, and show that the less includes the greater. We propose, therefore, to give to Prof. Drummond's method a fuller examination than it would require if it were not typical of a large class ; and then to justify our statement that the Christianity he defends is, in more than one essential point, different from that of the Church of Christ. "What I would desire especially," says Prof. Drummond, in his Preface, "is a thoughtful consideration of the method." We are, therefore, joining issue on precisely that ground on which he challenges us.

Now this method was not *made*, it *grew*, and it is most interesting to learn how it grew :—

"It has been my privilege," the author tells us, "for some years to address regularly two very different audiences on two very different themes. On week-days I have lectured to a class of students on the natural sciences, and on Sundays to an audience consisting for the most part of working men on subjects of a moral and religious character. . . . For a time I succeeded in keeping the science and the religion shut off from one another in two separate compartments of my mind. But gradually the wall of partition showed symptoms of giving way. The two fountains of knowledge also slowly began to overflow, and finally their waters met and mingled. The great change was in the compartment which held the religion. It was not that the well there was dried ; still less that the fermenting waters were washed away by the flood of science. The actual contents remained the same. But the crystals of former doctrine were dissolved ; and as they

precipitated themselves once more in definite forms, I observed that the crystalline system was changed. New channels also for outward expression opened, and some of the old closed up; and I found the truth running out to my audience on the Sundays by the week-day outlets. In other words, the subject-matter religion had taken on the method of expression of science, and I discovered myself enunciating spiritual law in the exact terms of biology and physics" (Preface, pp. vi., vii.).

We invite special attention to this passage, because, though we are assured that "the fermenting waters" of religion "were not washed away by the flood of science," yet we are told that "the great change was in the compartment which held the religion." "It meant essentially," we are told, "the introduction of natural law into the spiritual world" (p. viii.). "The reign of law will transform the whole spiritual world as it has already transformed the natural world" (p. ix.). "My spiritual world before was a chaos of facts; my theology a Pythagorean system trying to make the best of phenomena apart from the idea of law" (p. x.). In other words, Prof. Drummond started with much religion—no one can read his book without being certain of this—but with *no theology whatsoever*. For theology is nothing if it is not scientific; and scientific means pervaded by law. Later on, in his chapter on Parasitism, Prof. Drummond seems to glory in the fact, since all, except home-made theology, leads to the atrophy

of the spiritual organs. This, however, he is careful to inform us, does not apply to the Bible, but only to "propositional theology." When we ask, why? the answer seems to be that a man who goes to the Bible only to justify a discovery of his own, generally gets what he goes for. It is needless to say that Prof. Drummond does not deal in the same way with the great generalisations of science; nor does he think there that a man is the better for making a clean sweep of the work of those who have gone before him.

Prof. Drummond had no theology. He could not embrace, as a whole, the arbitrary system deduced by John Calvin from a one-sided truth. But if he had no theology, he had considerable acquaintance with the principles of science. He saw that the world of nature was being transformed, from a chaos to a cosmos, by the introduction of the conception of law, and he asks naturally enough, and with all the enthusiasm of one who has got a new idea, Why may not law reign in the moral world? Why may not its chaotic atoms become a harmony as perfect as nature? Nay, why may not *the same laws* run through both and make both parts of "one stupendous whole"?

Nothing could be more interesting than to watch the process by which a religious-minded student of nature, like Prof. Drummond, starting without a theology, and even with a prejudice against a

theology, gradually becomes convinced that, if religion is to exist, in the face of science, it can only be when a scientific theology underlies it and makes religion and science a unity. It never occurs to him that it exists already, and that the very notion of unity, law, and order has passed from the theological into the scientific sphere, though he had heard something about "a derived theology" round which "venerable verbiage" had gathered, and was surprised, on the whole, to find its results so much in accord with what he calls "the truth as it is in Nature." It was no wonder that, under such conditions, the wall cracked from the side of Science, there being so little pressure from the side of Theology. And the only reason why Prof. Drummond's conclusions are not more false than they are, is because he has so firm a grasp of some isolated facts in the moral world, and so true a hold on Nature, which all Christian theology affirms to be, in its own way, a reflexion of God.

But Prof. Drummond has learned from the teachers of science ever since Bacon, that it is a dangerous thing to introduce theology into science, and yet he is far too much of an evolutionist to accept the deism which is the complement of that teaching. And so he makes the fatal mistake of carrying natural science into theology. He so plainly states what we hold to be the true method

in contrast to his own, that we again quote his Preface :—

“I did not begin,” he says, “by tabulating the doctrines, as I did the laws of nature, and then proceed with the attempt to pair them. The majority of them seemed at first too far removed from the natural world even to suggest this. *Still less did I begin with doctrines and work downwards to find relations in the natural sphere.* It was the opposite process entirely. I ran up the natural law as far as it would go, and the appropriate doctrine seldom ever loomed in sight till I had reached the top. Then it burst into view in a single moment” (Preface, p. xvii.).

The sentence we have italicised we believe rightly to describe the true method, *not* for the scientific man *as such*, but for any one who feels called upon to attempt a reconciliation of religion and science. Prof. Drummond avowedly adopts the other. And yet his fear that his religion should distort his science was comparatively needless. For he was, by his own confession, much surer of his scientific than of his theological ground ; whereas the danger to his religion was very great and very real. His science was practically fixed ; his theology was in a fluent condition. Where it had crystallised, it had crystallised on the lines of Calvinism, and there, we shall find, science has to give way, or a particular phase of it has to be stereotyped ; but elsewhere Prof. Drummond is again and again driven in the direction of Christianity by sheer force of that truth which nature reveals.

In order to make quite clear our own view in contradiction to Prof. Drummond's, and to justify criticisms which might otherwise seem verbal and trivial, we venture to set down certain truths which are commonplaces of theology. Revelation is the unfolding to us of the nature of God and a system of moral law, which embraces all created things. Theology is the scientific exposition of what we know of God and His relations with all created things. Science is the attempt to discover the working of God's Providence in nature, the expression of His Will in those laws which to science are known only as "observed uniformities of sequence and co-existence." The laws of the moral world are revealed through conscience and revelation; the laws of the natural world are to be discovered by reason and experience. The sphere of the natural and the sphere of the moral are alike under the reign of law. And that law is always moral, though in the natural sphere, that which strikes us most is the *uniformity*, while in the moral we clearly see the *purpose*. To express the moral in terms of what we know as the natural, is to sink the Divine purpose in the orderly method. "Natural law in the moral world" is either meaningless, or it implies the surrender of religion to science. "Moral law in the natural world" is that which every one, who can call himself a theologian, takes for granted. That is to say, every real

theologian finds that unity which reason requires in the universality of the moral law, even where, as in the "uniformities of nature," it is least obvious.

Prof. Drummond has an admirable sentence towards the end of his Preface. He says "as the contribution of science to religion is the vindication of the naturalness of the supernatural, so the gift of religion to science is the demonstration of the supernaturalness of the natural" (p. xxii.). But it is the last, not the first, which our age needs, "the vindication of the supernaturalness of the natural," in other words the vindication of the truth that all natural law is moral, and finds its explanation only as part of a great moral unity. And Prof. Drummond's whole argument tends in the opposite direction. He looks forward to the day when "in the impersonal authority of law men everywhere will recognise the authority of God." He does not see that, if men are logical and religious, it must be an impersonal God ; while, if they are logical and not religious, the alternative is the denial of God. If Prof. Drummond's method is true, Pantheism is the result for religious men, and materialism for those who do not wish to worship. We do not for one moment suggest that Prof. Drummond is pantheistic, still less materialistic. We are simply looking at his method and its logical result.

Our objection here may be met by saying that

after all Prof. Drummond is only using the physical to explain the moral, and for this we have the highest authority—viz. that of our Blessed Lord. Our answer is that Prof. Drummond does not attempt to do this. He says:—

“The position we have been led to take up is not that the spiritual laws are analogous to the natural laws, but that *they are the same laws*. It is not a question of analogy, but of *identity*” (p. ii.).

Our Lord, having perfect and infallible knowledge of the spiritual world, saw its great truths reflected in the physical, and enforced the moral truth by the parables of nature. Prof. Drummond gives up revealed theology as a mere “derived” science, and attempts to reconquer the lost territory from the basis of physical inquiry. Yet he only knows what the territory, which he has to recover, is, by the survival in his religious consciousness of parts of the Christian’s theological heritage.

Nor can Prof. Drummond find any support in the great apologetic work of Bishop Butler. It is quite true that its title, “The Analogy *of* Religion to the constitution and course of Nature,” implies that the argument is from the natural to the moral, as it was bound to be. And Prof. Drummond is right in saying that Bishop Butler’s real intention was not so much to construct arguments as to repel objections; while what we need is something more constructive. But Bishop Butler’s argument, con-

clusive as it was against those for whom it was intended, as even James Mill confessed, did not admit of being used positively, and Bishop Butler would never have been guilty of the logical blunder of attempting it. Bishop Butler never dreamt of finding even analogies in nature to the great truths of the Christian faith. He argued unanswerably that a man cannot, without inconsistency, quote difficulties in revelation as an argument against Christianity, when similar difficulties in nature did not compel him to reject natural religion.

From first to last we find Prof. Drummond's method leading him astray. The assumption of the identity of the laws of the moral and natural world enables him to study them in either sphere. But the moral was, for him, as yet unreduced to order; the natural had been illumined by great men from Bacon to Darwin. Scientific theology being "venerable verbiage," and the short cuts of Protestant divines being incapable of scientific expression, the unclaimed territory was little by little encroached upon by science till Prof. Drummond found himself "enunciating spiritual law in the exact terms of biology and physics"—with what grievous loss to the spiritual truth remains to be seen. But this is the more remarkable because Prof. Drummond seems to be aware of the danger he falls into. He quotes with approval an excellent passage from Mr. Hutton's essays, which might

have been written as a criticism of the book before us :—

“Any attempt,” says Mr. Hutton, “to merge the distinctive characteristic of a higher science in a lower—of chemical changes in mechanical—of physiological in chemical—above all, of mental changes in physiological”—(and we may add of the moral in the physical)—“is a neglect of the radical assumption of all science, because it is an attempt to deduce representations—or rather misrepresentations—of one kind of phenomenon from a conception of another kind which does not contain it, and must have it implicitly and illicitly smuggled in before it can be extracted out of it” (pp. 21, 22).

Mr. Hutton here plainly points out the danger of a method which, while it has received formal shape from the materialistic opponents of Christianity, is constantly used by Christians in good faith and with the best intentions, though it rarely finds such a champion as Prof. Drummond. In several passages from the “Unseen Universe,” and in his remarks upon them towards the end of the introduction, Prof. Drummond takes a far truer view of the relation of the natural world to the spiritual. The spiritual, he says, is not a projection of the natural, but the natural of the spiritual. Here he is sometimes Platonic :—

“The world is not a thing that *is*; it *is* not. It is a thing that teaches, yet not even a thing—a show that shows, a teaching shadow. . . . The visible is the ladder up to the invisible; the temporal is but the scaffolding of the eternal” (p. 57).

And so on. But generally the facts of natural

science, as at present understood, are taken for granted, and moral truths, derived from conscience and more or less directly from scientific theology, are fitted in with them. What else could happen when, as Prof. Drummond understood, God had divided the world in two, a cosmos and a chaos, and the higher being chaotic seemed to be reduced to order, when expressed in terms of that to which the conception of law and uniformity had given order and beauty.

It was natural, then, that Prof. Drummond should appeal to science to rehabilitate his theology. And this he does, except when some strongly held religious conviction steps in to modify the science or to foreclose an open question. It is, however, not often that his religion vitiates his science—far more often his science vitiates his theology, or at least buttresses up an opinion which was false to start with. Now, a theology that is true cannot really vitiate science, but a science that is true must fail to be an adequate expression of theological truth ; for the higher explains the lower ; the lower cannot explain, though it may illustrate, the higher.

It may be well here to point out exactly how we differ from Prof. Drummond and those who adopt his method. Prof. Drummond says, " The greatest among the theological laws are the laws of nature in disguise " (p. 52). We maintain—and the difference is by no means a verbal difference—that the greatest

among the natural laws are the laws of theology in disguise. Prof. Drummond says the natural laws are "continuous through the spiritual sphere, not changed in any way to meet the new circumstances, but continuous as they stand" (p. 37). We maintain that the theological laws are continuous through the natural world, though, without theology, we cannot see their full meaning, but must stop at the barren conception of "observed uniformities." Prof. Drummond says the higher or moral world is for us as yet a chaos, while nature, the lower, is a cosmos. We maintain that Christian theology is a cosmos, and science is just beginning to find traces of the same unity running through the phenomena of nature. Prof. Drummond holds that "the truth as it is in nature" (Pref., p. xvii.) interprets and illumines revelation for us ; we hold that "the truth as it is in Jesus" can alone interpret and give a rational unity to the laws of the natural world. Prof. Drummond speaks of the unseen universe as "that great duplicate" (p. 55) ; we maintain, and so does Prof. Drummond in his more Platonic moods, that earth is "but the shadow of heaven." Finally, Prof. Drummond argues from the more known to the less known. So do we ; but we begin at the other end.

We proceed now to show the results of Prof. Drummond's method when applied, though we fully allow that it would be unfair to condemn the

method by the applications of it, unless we are quite sure that they follow from the method itself. In the Preface we read—"The applications ventured upon here may be successful or unsuccessful. But they would more than satisfy me if they suggested a method to others whose less clumsy hands might work it out more profitably" (p. xx.). Our fixed belief is that it is impossible to find any one who could apply the method with greater delicacy of touch, or equal richness of illustration. If the applications fail, it is because the method is false and necessarily distorts the conclusions.

Of the more practical chapters we have little to say, except so far as they imply the views we are criticising. In them we find many able and striking illustrations of moral and spiritual truths, some of which are as amusing as they are ingenious. Apart from the question of true and false, it is very amusing to find all Roman Catholics calmly likened to the hermit-crab, found guilty of semi-parasitism because they have sought safety in the whelk's shell of infallibility. Curiously enough, their semi-parasitism is said to be shared by the "narrower Evangelical school," who offer "salvation by formula"—*i.e.* those people who preach "sudden conversion" not quite in Prof. Drummond's way. But there is a lower depth than semi-parasitism, which is reserved for *the regular churchgoer*, "the pampered parasite of the pew," who depends for

his spiritual pabulum on the weekly sermon. The only hope for such a man is that the food provided will be so bad that he will "run here and there for meat and grudge if he be not satisfied ;" and Prof. Drummond adds, with considerable humour, "Providence has mercifully delivered the Church from too many great men in her pulpits" (p. 355). The fallacy underlying these ingenious illustrations is the assumption which is made by all undogmatic Christianity, that any food a man finds for himself must be better than any provided for him, on the ground, apparently, that the exercise involved in the getting it more than compensates for any inferiority in the food. It is, no doubt, true that "He who abandons the personal search for truth, under whatever pretext, abandons truth." But what if a soul, rejecting the bread which God has provided in His Church, tries to satisfy itself with a stone, and mistakes for theology what is after all only physical science touched by religiousness?

Still, as illustrations, these scientific conceits are admirable, and will probably find their way into many pulpits, where the theology taught is very different from Prof. Drummond's. As arguments, they stand or fall with the method.

But we have ventured on the assertion that the Christianity which is here defended is not that of the Church of Christ. In order to justify this, we must assume in our readers a fairly intimate ac-

quaintance at least with the chapters on "Biogenesis," "Death," and "Eternal life." But, in fact the whole structure, reared by Prof. Drummond, depends upon the theory put forward in the chapter on Biogenesis, a doctrine which later on he speaks of as "the foundation of science and of spiritual religion" (p. 380). We begin, then, with science, as the author does. In the scientific sphere, we are told, it is "a decided and authoritative conclusion," "a settled question, so far as science can settle anything," a truth "recognised on every hand," that 'life can only come from the touch of life' (p. 63). Is this true? If it is *not*, Prof. Drummond's entire work is lost labour. *Omne vivum ex vivo* is the very pivot of his system. Life must come from life; not merely ultimately, but directly and without the mediation of anything which we call *dead*. For instance, it would be a violation of the principle, as Prof. Drummond understands it, if we were to hold that God, the Source of all Life, had endowed "dead matter" with potentialities which, under His Hand, might develop into a living plant. Now we are anxious to go as far as possible to meet Prof. Drummond in this matter. We fully allow, with Huxley, that the doctrine of Biogenesis is "victorious along the whole line at the present day," and, with Tyndall, that "no shred of trustworthy experimental testimony" in favour of the opposite view exists. But we deny that it is a settled question, or is so

regarded by scientific men. We know that there are to be found among leading scientific men those who, with a far clearer grasp of Christian truth than Prof. Drummond has, yet look forward to the day when it will be reckoned among the triumphs of science that this gulf between living and dead is bridged over. It affects Prof. Drummond's position in no way to say that such a discovery would not touch Catholic theology, and would only shift back the difficulty to that mysterious something, now called "dead matter," which we should then know to be the seed of life. For Prof. Drummond and his theory the discovery would be absolutely fatal. Of course he would argue fearlessly that such a day can never come. "So far as science can settle anything, this question is settled." To this we reply by a question,—Does any single scientific man, who is capable of understanding the question, whatever may be his own view, believe that Biogenesis is *as certain as the law of gravitation*, or the correlation of the physical forces? If not, it is a dangerous foundation on which to build a science which deals with the salvation of souls.

But let us see what Prof. Drummond builds upon this foundation. The counterpart of the physical theory of Biogenesis is the doctrine of regeneration :—

"The spiritual life is the gift of the Living Spirit. The spiritual man is no mere development of the natural man.

He is a new creation born from above. As well expect a hay infusion to become gradually more and more living until in course of the process it reached vitality, as expect a man by becoming better and better to attain the eternal life" (p. 65).

Now, apart from the attempt to base the doctrine on what *may* be a transient phase of physical inquiry, this all looks fairly Christian. The Council of Trent is as clear as the wildest statements of solifidianism, so far as denying to man the power to save himself. If then regeneration means the work which Christ did for the whole human race, and the special application of that work to the individual soul by the Sacrament of Baptism, we might, in a sense, accept Prof. Drummond's statement. We have no sympathy with those who believe that the natural man shades off into the spiritual, independently of the grace of God. But those who know Prof. Drummond's book will find that we have, in these last sentences, been reading between the lines. Prof. Drummond means nothing of the kind. When he talks about "regeneration" he does not mean regeneration. As for baptism, so far as we remember, the word does not occur between the covers of his book. The great baptismal text is indeed quoted, but the direct reference to baptism is neither explained, nor explained away :—

"The spiritual world," we are told, "is guarded from the world next in order beneath it by a law of Biogenesis—*except*

a man be born again . . . except a man be born of water and of the Spirit he cannot enter into the kingdom of God." "The exclusion of the spiritually inorganic from the kingdom of the spiritually organic is not arbitrary." . . . Their entrance is "a scientific impossibility." . . . "There being no passage from one kingdom to another, whether from inorganic to organic, or from organic to spiritual, the intervention of life is a scientific necessity, if a stone, or a plant, or an animal, or a man is to pass from a lower to a higher sphere" (pp. 71, 72).

All this makes us the more anxious to know what regeneration means, and how the life, without which man is hopelessly dead, comes. Prof. Drummond's answer is as clear as it is terrible. In pp. 80-83 he deals with the question, "What distinguishes a Christian man from a non-Christian man?" and we are told at once that "the distinction between them is the same as that between the organic and the inorganic, the living and the dead." "When men are offering us a Christianity without a living spirit, and a personal religion without *conversion*," we must not shrink from an unpopular doctrine. And here it is:—

"It is an old-fashioned theology which divides the world in this way—which speaks of man as living and dead, lost and saved—a stern theology all but fallen into disuse. This difference, between the living and the dead in souls, is so unproved by casual observation, so impalpable in itself, so startling as a doctrine, that schools of culture have ridiculed or denied the grim distinction. Nevertheless, the grim distinction must be retained. It is a scientific distinction. 'He that hath not the Son hath not life'" (p. 83).

For a moment it seemed to us that even this might be explained in a Christian sense, but the last hope was destroyed by a passage in p. 93 :—

“This Life comes suddenly. This is the only way in which Life can come. Life cannot come gradually—health can, structure can, but not Life. A new theology has laughed at the doctrine of conversion. Sudden conversion especially has been ridiculed as untrue to philosophy and impossible to human nature. We may not be concerned in buttressing any theology because it is old. But we find that this old theology is scientific.”

In these passages two or three points in Prof. Drummond's theology are apparent. There is a great distinction between unregenerate and regenerate, lost and saved, dead and living. Between them there is a great gulf fixed. Nothing but the advent of Life from without can bridge it over. That Life is from God,—is given at a definite moment. This is Regeneration, or sudden Conversion, for the terms are convertible, and it is God's work, not man's. The unregenerate—*i.e.* the unconverted man—“is as a crystal to an organism” (p. 75). It is not that he does not, or will not, see God and live,—he *cannot*.

Here once more we must put side by side with Prof. Drummond's speculations the teaching of Christian theology. Regeneration is wholly God's act as much as creation is; conversion implies a conscious act of a responsible being enabled by God's grace. It is one of the root errors of

Calvinism that this distinction is ignored. The denial of Free Will made the distinction meaningless. God, therefore, is made the source of regeneration and conversion alike. They become but two names for the same thing. And this is Prof. Drummond's view. "Growth is the work of time. But Life is not. That comes in a moment. At one moment it was dead; the next it lived. This is conversion, the 'passing,' as the Bible calls it, 'from Death unto Life.'" And he adds—in a passage which we confess conveys no meaning to us :—

"Those who have stood by another's side at the solemn hour of this dread possession have been conscious sometimes of an experience which words are not allowed to utter—a something like the sudden snapping of a chain, the waking from a dream" (p. 94).

It is consistent with this view that Prof. Drummond makes so absolute the separation between morality and religion :—

"The one is natural, the other mechanical. The one is a growth, the other an accretion. . . . The one is an organism, in the centre of which is planted by the living God a living germ. The other is a crystal, very beautiful it may be, but only a crystal—it wants the vital principle of growth" (p. 128).

We are not anxious to contend that non-Christian morality is the same as Christianity, but we do most earnestly contend for a living germ "planted by the living God," in many who were never permitted to hear of the Gospel of Jesus Christ.

Nothing can be more suicidal than for a Christian apologist to exalt religion at the expense of morality. For morality is the basis of religion, and conscience the undying witness, even in the most degraded heathen, to the being of God. There are theologians who have depreciated morality because their theology was essentially immoral; but Prof. Drummond is only led to do it by his physical theory of life, which compels him to say that morality is dead because religion is alive.

Even more startling are Prof. Drummond's views on Agnostics, and yet they are perfectly logical. Life, we are told, in the language of evolution, is "correspondence to environment," and "perfect life is perfect correspondence." To be out of correspondence with any part of our environment is to be dead to that part. Now, the Agnostic, on his own confession, is out of correspondence with what Christians mean by God. Therefore, says Prof. Drummond, he is *dead*. "When the Agnostic tells me he is blind and deaf, dumb, torpid, and dead to the spiritual world, I must believe him. Jesus tells me that. Paul tells me that. Science tells me that. He knows nothing of this outermost circle" (p. 160). In fact he only says openly what is true of all the unconverted, all those who have not been "seized upon by the quickening Spirit of God." They are to the "converted," "as the mineral is to the plant." It occurs to Prof. Drum-

mond on one occasion "that this view makes man mere clay in the hands of the potter," but he does not discuss the question. It is clear, however, that, in the case of the Agnostic, who is "not a monster, but a dwarf," there is no blame at all attaching to him. He is only without what God has not pleased to give him, and what no amount of effort on his part can ever secure. Prof. Drummond actually thinks this will be more consoling to him than to tell him he is what he is by his own fault; and that God is willing, if he will submit, to make him what he is not :—

"It brings no solace to the unspiritual man to be told he is mistaken. To say he is self-deceived is not to compliment him nor Christianity. He builds in all sincerity who raises his altar to the *Unknown* God. He does not know God. With all his marvellous and complex correspondences, he is still one correspondence short" (p. 101).

And that correspondence, be it observed, is *the only absolute distinction between man and brute*. Man has a soul, that is, he is made to know God.

But Prof. Drummond's language, even on his own principles, is indefensible. The term "dead" cannot, except by analogy, be applied to things without life, unless they have had it and lost it. But the Agnostic is simply without life, as a crystal is. A dead crystal is an absurdity. Again, regeneration, however Prof. Drummond interprets it, has no meaning unless it is the re-creation of life,

which once was. If creation gives physical life, and regeneration spiritual life, that which is "born again" is not what was born before. It is therefore not born again. Theology says regeneration is the re-creation of man originally created in the image of God.

Further, Prof. Drummond does not seem aware of all that his theory implies. For all the unregenerate it necessarily implies annihilation. For the falling out of correspondence with the rest of their environment is, for them, the end of all things. It is only fair, however, to say that Prof. Drummond guards himself against the closely connected heresy known as the "indefectibility of grace." The living soul can commit suicide. But, be it observed, the alternative possibilities of balance, degeneration and evolution, are only possibilities for "the spiritually organic." They are biological terms and have no meaning for "the spiritually inorganic." And the Agnostic and the unregenerate are only crystals.

Now we are not anxious to reconstruct Prof. Drummond's parallels, and to show how a true theology might have saved him from many of the dangers of a radically false method. But it is imperatively necessary to contrast with his speculations the results of the "derived theology" of Christendom. We will even, under protest, and for the sake of pointing our opposition to his

theory, use sometimes his physical terminology. Now, according to Christian theology, the analogue to the distinction, in the physical world, between organic and inorganic—whether that distinction be absolute or not—is the distinction between man and brute. Man, as man, is a living soul. He was made “in the image of God,” capable of knowing Him, and this is life. Even in fallen humanity the image is marred, not as the Calvinist says, destroyed. The “correspondence” is imperfect, but it exists. Man is still “a living soul,” he has a capacity for God, and hence the possibility in man and man only of morality and religion. Hence, too, the guilt of the “unregenerate” heathen who, “knowing God, glorified Him not as God.” In them degeneration began and ran its course, till they could not see God. Elsewhere in unregenerate man we can trace the only other possibilities for life—balance and evolution—though perhaps we ought rather to say, and Prof. Drummond almost does say it, that in the spiritual life the only alternatives are evolution and degeneration. Outside Christianity, the most perfect form of “correspondence” with God is seen among the chosen people, and in the Psalms of David. Then came the gift of Regeneration, when, in the Incarnation, the Divine “seized upon” the human and transformed it, not indeed giving life for the first time—that was the work of Creation

—but renewing the life that was faintly struggling with death. The fading image of God in the human soul was sketched anew, and there is opened for him a possibility, not only of recovery and return to the unfallen state, but of “perfect correspondence” with God by union with the Perfect-Man.

Prof. Drummond strangely misses an important point, which his own analogy forces on him. He says regeneration is the work of environment—*i.e.* God. True, and *conversion* is adaptation to environment. A new environment in the natural world is a savour of life *and of death*. The organism, if it adapts itself, is raised to a higher level in the scale of creation. If it does not, the new environment *kills it*. Theology teaches that every revelation of God to man is a probation, a judgment. It comes from a God of love, “not to judge, but to save,” and yet judgment is its inevitable result. It is so with the natural light of Conscience. It is so with the Old Testament revelation. It is so with the Gospel of Christ. The new “environment,”—if we must use biological language,—brings with it new powers of “correspondence,” which man may use or refuse. “This is the judgment, that the light is come into the world, and men loved the darkness rather than the light.” “But as many as received Him, to them gave He power to become the sons of God.” No doubt the lower in relation to the higher is often spoken of as relatively *dead*, *i.e.*

without the knowledge of God. The heathen as contrasted with the Jew "knew not God;" the Jew as contrasted with the Christian "had not life." Yet man, as man, heathen, Jew, or Christian, is born with a power of knowing God, which he may develop or destroy. This is his probation.

It is saddening to see so much spiritual force, to say nothing of ingenuity and literary power, wasted in the defence of a false view of Christianity. Prof. Drummond, from first to last, never realises the meaning of Free Will, and its relation to the Grace of God. As he minimises Free Will to exalt the Grace of God, so he depreciates morality in order to exalt religion. And in both his defence is fatal to that which he defends. How did it all happen? Prof. Drummond shall answer. His starting-point was "the introduction of natural law into the spiritual world." "There is," he says, "a sense of solidity about a law of nature which belongs to nothing else in the world. Here, at last, amid all that is shifting, is one thing sure" (pref., p. xxiii.). And what is natural law, as known to those who do not interpret science by theology? An observed uniformity of sequence or coexistence; nothing more. Personality, freedom, conscience, all these are terms unknown to physical science, and yet in them lay Prof. Drummond's only safeguard against Pantheism and Materialism; the only basis for morality or religion; the only pos-

sibility of an argument from the physical to the spiritual. Yet all this disappears with the "derived theology" of Christendom, and Prof. Drummond proceeds, however unconsciously, to answer the question :—Given Darwin and Spencer as the regenerators of science, and science as the purifier of theology and the only really trustworthy interpreter of the Bible, how can we reconstruct our beliefs so as to keep Calvin's theory of election and conversion, and get rid of the "venerable verbiage," which, for eighteen centuries and more, has passed for Christian theology? The result is what we have seen, a result which is admirably described in the "Novum Organon." Lord Bacon was criticising those who only made the mistake of trying to find science (*philosophia naturalis*) in the Bible, "seeking," as he says, "the dead among the living." Prof. Drummond reverses the process, and seeks the living among the dead. But the general result is the same. "From this unwholesome mixing up of things human and divine, there arises not only a phantastic science, but also an heretical religion" ("Nov. Org.," I. lxx.).

II.

THE UNITY OF NATURE.*

No apology is needed for attempting a full and detailed examination of *The Unity of Nature*. Even apart from the interest and importance attaching to a work by the writer of "The Reign of Law," no one can have glanced through the articles, as they appeared in the "Contemporary Review," without feeling that, when collected into a volume, they must take their place among books which, whether they are accepted or rejected, cannot be ignored. Men will of course variously estimate the positive results of the essay; and specialists will be sure to fasten upon particular arguments and illustrations, which, if not unfair, are at least unfortunate. And yet the value of the book will depend neither upon its science nor upon its theology, but upon its fearless attempt to grapple with great questions; upon the suggestiveness of the answers proposed, even when it may not be possible for us entirely to accept them;

* "The Unity of Nature," by the Duke of Argyll. London: Alexander Strahan.

and above all upon its philosophical grasp of that unity, in which differences are not lost but harmonised.

It is often said that the last age looked for hard lines, and rested satisfied with elaborate classifications, while our age must have unity at any price, and will rather explain away a fact, than recognise anything which does not fall into its place in the system of the whole. In our day Deism exists only as a "survival," and few things are harder for us than to believe that it was once so widely accepted. Materialism and Pantheism we can understand. We feel the attractiveness of these considered as *theories*, but Deism seems to conflict with the first impulse of reason.

Now it is clear that this overmastering desire for unity has dangers peculiar to itself. And it is no less clear that any one who ventures to point out the weakness, not in a particular theory, but in that which is the pre-supposition of many, if not most, of the prevailing views, will at once range himself on the unpopular side, and seem to be in disagreement with all the greatest among his contemporaries. This will be even more obviously the case if the writer not only sees the intellectual dangers of the day, but also has reason to distrust that theory, or group of theories, which is in the ascendant. In such circumstances a well-meant and valuable warning looks like a mere polemical argument brought

against the theory ; while a solid and substantial objection to the theory is put on one side because of the objector's general attitude towards what is vaguely called "the thought of his age."

This we believe to be a true account of the Duke of Argyll's position. He believes in the unity of nature as only a philosophical mind can. But he sees how many dangers may lurk under the phrase, how many truths may be obscured by it. There was a time, long ago, when the unity of knowledge was as much a commonplace as the unity of nature is now. And the birth of modern science marks the protest against that view. Yet the schoolmen were not wrong in their belief in the unity of knowledge ; they were only wrong in allowing the truth of the unity to overshadow and ultimately to destroy the differences which exist in knowledge. And so they imagined that the method of the sacred science of theology must be the method of the sciences of nature, and that, from the great central and eternal verities of the Faith, the physical sciences might naturally be evolved. Scientific men may laugh at the idea that they are in danger of a revived scholasticism, and yet the Duke of Argyll is not the only one who thinks that a word of warning may save us from the mediæval error.

But unfortunately the Duke is in very imperfect sympathy with that doctrine which, more than any

other, has helped us to realise the unity of nature ; we mean, of course, evolution. Nor does he always clearly distinguish between evolution and the materialistic views which are often held with it ; and which the language of evolutionists, even when they are far enough from materialism, certainly favours. The result is a curious complication. Those, who entirely agree with the Duke's main position, and yet feel bound in fairness to criticise severely some of his arguments, whether they make good their point or not, will seem to be fighting on the side of materialism ; while, if they should succeed in pointing out unsound or irrelevant conclusions, those who are but lookers-on in the conflict, will infer that the Duke's book is of far less value than it is.

The Duke begins with a warning which is repeated at intervals, and which might, in a sense, be called the very text of the book. And it is a note of warning which is worth sounding, though scientific men will naturally dislike it. One who is in the van of an advancing column rarely receives with perfect equanimity the suggestion that rapid progress has its dangers, and it is possible to go too fast. In the case of scientific discovery it is always a thankless task to point out that there are some facts which are not soluble in the new theory, or at least are slurred over by it. And when the warning comes from one who seems to approach

science from the theological side, and freely criticises the theory with which the greatest discoveries of the day are identified, we cannot wonder if he is put down as a theological obstructive. And yet the warning may be most necessary, and one which, in the abstract, would be generally received :—

“It is well to remember,” says the Duke, “that no increase of knowledge can be acquired by a wilful confounding or a careless forgetfulness of distinctions. We may choose to call two things one, because we choose to look at them in one aspect only, and to disregard them in other aspects quite as obvious, and perhaps much more important. And thus we may create a unity which is purely artificial, or which represents nothing but a comparatively insignificant incident in the system of nature” (p. 5). “There is nothing more common and more fallacious in philosophy than the endeavour by mere tricks of language to suppress and keep out of sight the distinctions which nature proclaims with a loud voice” (p. 37). “The real unities of nature will never be reached by confounding her distinctions” (p. 54). “It is very easy by mere artifices of language to obliterate the most absolute distinctions which exist in nature” (p. 55). And, once more, “From the beginning of this essay, I have protested against all conceptions of the unity of nature which depend on confounding her distinctions, or on concealing them, or in any way failing to give them their fullest value” (p. 173), and so on.

Now with these and such-like warnings—apart from the *animus* which shows itself in such terms as “wilful,” “careless forgetfulness,” “the endeavour by tricks of language,” etc.—no scientific man can have any quarrel. He may think the warning un-

necessary, or he may go so far as to allow that a great doctrine, which owes its greatness to the emphasis it puts upon unity, is specially open to this danger. If the warning had come, as it does come not unfrequently, from a purely scientific inquirer, no one would have dreamt of an *arrière-pensée* of any kind, least of all of a theological objection. And yet the fact that the Duke is writing in opposition to materialistic views is no just ground for rejecting his warning if it is needed, as we believe it is ; nor are we, on the other hand, bound to accept all the cases he quotes as instances of the fallacy against which he warns us.

The unity of nature, as the Duke reminds us, is no discovery of science. Science only confirms a belief which "must be at least as old as the idea of one Creator." And certainly, without attempting to decide the question whether monotheism or polytheism is historically prior, or whether the idea of unity in nature and in theology is not implicit in reason itself, it is certain that it found expression in theology, long before science, as we understand it, came to the birth. The Mosaic cosmogony, however unscientific it may be, anticipated by many centuries the teaching of science as to the unity of nature. But we are so proud of having it now as a hard-won triumph, that we almost forget how far we travelled from that early idea before we recovered it as a scientific truth. A

nineteenth-century metaphysician does not like to be told that, after 2000 years of speculation, he is puzzling himself with the old problems. He knows that there is at least as much falsity as truth in such a statement. And we may suppose that the feelings of a modern evolutionist are somewhat similar when he is reminded that if the unity of nature is a modern discovery, it is at least a very ancient belief.

From this point the Duke of Argyll proceeds to develop the idea of what the unity of nature means, his object being to show that, while unity is a true and necessary category under which to bring the manifoldness of nature, we are at every step in danger of losing a truth in order that we may gain one. Difference is as real as unity, and "the higher truth may have been one which we have always known, and the lower truth that which we have recently discovered." The first instance chosen is that of the "great pentarchy of physical forces which is constituted by heat, light, magnetism, electricity, and chemical affinity." It is one of the triumphs of modern science that we can speak of these as "correlated" in such a way that "they may all interchangeably be either the cause or the consequence of each other." But when Professor Tyndall gives a lecture, entitled "The Identity of Light and Heat," he ignores the fact that "correlation" is not "identity," and that

"the unity or close relationship which exists between heat and light is not a unity of sameness or identity, but a unity which depends upon and consists in correspondences between things in themselves different." Physiologically light and heat are certainly not the same. Considered as sensations of our organism, light is not heat nor heat light. But Professor Tyndall is speaking as a physicist, and so is the Duke. Yet even for the physicist the two are different. Light consists in undulatory vibrations in the pure ether, heat in certain motions of the molecules of solid or ponderable matter. We must, therefore, make abstraction of the *media* before we can speak of light and heat as identical. The only kind of heat which even for the physicist is identical with light, is that which is not heat strictly speaking, to which even the name of heat is denied, the old term "radiant heat" being exchanged for "radiant energy."

This is a fair sample of the Duke's procedure. Those who do not see the bearing of the whole, will look on such criticisms as quibbling and meaningless. Nor will they be better pleased with the Duke's warning that the discovery that there is but one chemistry for inorganic and organic, does not do so much as is sometimes supposed to blur the line which separates the two:—

"Properly speaking, there is no chemistry except the chemistry of the inorganic, although the unorganised or

elementary, lifeless, and comparatively structureless compounds which chemistry is alone competent to produce, are the necessary materials of all living structures" (p. 245).

The fact still remains that organic and inorganic are distinct, though the chemistry in both is the same ; and if in nature there is, as there clearly is, a subordination of the lower to the higher, we sacrifice a real difference when we interpret the higher in terms of what it has in common with the lower.

And this is so right up the ascending scale. Animal life includes the lower vegetative life, but it is more ; man is an animal, but he is something more than what we commonly mean by animal. And it is just here that we touch the point of difference between materialism and a true evolution. Materialism, as the Duke sees, persistently interprets the higher by the lower. Evolution, on the other hand, if it is true to itself, cannot do this. Materialists tell us man is *only* an animal, his reason is *only* sensation, conscience is *only* an instinctive love of the useful, the result of "organised experience." And such a view, which is not only not inherent in evolution, as the Duke seems to suppose, but would seem to contradict the very principles of true evolution, has as its *πρῶτον ψεῦδος* the attempt to interpret the higher in terms of the lower. But the farther down we go in the scale of being, the more universal and simple are the truths

we have to deal with, and to make reality depend on simplicity is a curious revival of scholastic realism, which finds its *reductio ad absurdum* in the view that the supreme reality is the absolutely Unknowable.

Here, then, though we have little sympathy with the implied belief that there is a necessary connection between materialism and evolution, we entirely agree with the Duke of Argyll's argument. And it seems to us that he has brought out more clearly than any writer of our day the real issue between a materialism which, if consistent, makes all knowledge impossible, and a rational "interpretation of nature" in which the man of science is no less interested than the theologian.

But when we come to discuss the Duke's defence of the main position, we cannot help feeling that the chapter on "Instinct" fails to concede to modern scientific theory what it has fairly a right to claim. The theory that experience may become instinctive is one with which the Duke's main position has nothing to do. Apparently the Duke thinks that somebody or other is trying to get rid of instinct by explaining it into experience, and that this is a new illustration of the materialistic tendency of evolution. He therefore cites, as a remarkable case of instinct, the gall-fly, which by an injury inflicted on the vegetable tissues of a growing plant produces a morbid growth specially

adapted to the preservation of the egg deposited in it. We have next a long description of the habits of the dipper or water-ousel, the dun-diver, the wild duck, and an unnamed moth, which had all the powers of the fabled owner of Gyges' ring, inasmuch as when necessary it could make itself invisible. Now if these cases of animal instinct had been quoted to show that there was a correlation of instinct with structure and environment, no evolutionist would have denied it ; and if the Duke had proceeded to argue that such correlation was at least an indication of design in nature, no evolutionist who was also a Christian, would have had any difficulty in the matter.

But the Duke wants much more than this. He apparently thinks that to resolve these instincts into their simpler forms, and to allow that they had a history, is somehow to damage the argument from nature to God. Surely this is to revive the old fallacy of supposing that "special creation" is bound up with the Christian faith. Most people who have studied the question, would allow, whatever their individual opinion, that "special creation" and "evolution" are alternative views as to the method of creation, and it is a fatal mistake to suppose that the faith is in necessary alliance or antagonism with either. But there are still a good many who think that if evolution is true, creation must be false ; and apparently the Duke deals in

the same way with the matter of acquired instincts. He seems to be afraid that to allow that the experience of one generation may become the instinct of the next—whether such a thing is possible or no is not now the question—is somehow to banish instinct from the world and put experience in its place. And on this he remarks, and we entirely agree with him, that “to account for instinct by experience is nothing but an Irish bull.” But is this what evolutionists mean? Are we any nearer explaining instinct when we have shown how certain instincts arose? The question is shifted a stage farther back; what seemed ultimate and is ultimate so far as the individual is concerned, is seen to be derived. But we are no nearer knowing what that is which makes possible the experience which may afterwards be “organised” into an instinct. The tendency to self-preservation is a pre-supposition of experience, and, apart from the artificial limitations which some scientific men are trying to impose on the use of the term, is itself *an instinct*. We are not the least inclined to allow scientific men to beg the question by assuming the identity of instinct and organised experience. When Hume said that “the experimental reasoning itself, which we possess, in common with beasts, is nothing but a species of instinct or mechanical power, that acts in us unknown to ourselves,” he was not talking

nonsense. He saw that experience, and *à fortiori* an acquired instinct which is the result of experience, pre-supposed something which was non-empirical. But the question whether habits which are useful in one generation can by minute structural modifications be handed on, as it were, ready made, to the next, is, we should have thought, hardly an arguable one, in the face of what we know of inherited tastes and tricks.

And we cannot suppose that the Duke of Argyll would deny this, for though he says that "the instinct has been given to the bird in precisely the same sense in which its structure has been given to it—so that, anterior to all experience and without the aid of instruction or of example, it is inspired to act in this manner on the appropriate occasion arising," yet on the next page he says that the fact that this self-preserving instinct is useless against man, shows "how much of knowledge and of reasoning is implicitly contained in it." An "inspiration" which has knowledge and reasoning contained in it, and that, too, a knowledge and a reasoning which have ceased to be consciously rational, is not materially different from an instinct which was once experience.

It is rather remarkable that the Duke, who devotes a long chapter to the moral character of man, and argues at great length that the sense of obligation is primary and simple, in spite of the endless

variety in moral judgments, does not see that he is dealing with precisely a parallel case when speaking of instinct. The fact which every anti-utilitarian moralist points out—viz. that utilitarianism “confuses the furniture of the conscience with the conscience itself, the acquisitions of a faculty with its existence,”—might have suggested to the Duke that the reality of what he means by instinct, and which, in common with the great majority of English-speaking men, he calls by that name, does not stand or fall with the question whether any number of given instincts are ultimate or derived. And the case on which he rests his defence is, as was pointed out at the time in “Nature,” most unfortunate. The dipper, so far as structure goes, is very imperfectly adapted to aquatic habits, or at least far less adapted than other birds which are distinctly aquatic. And the same is true *mutatis mutandis*, as Mr. Romanes reminds us, of the upland goose. Here, too, a structure, so little adapted to the terrestrial habits of the bird, points back to a time before he “entered on his career” (to use the Duke’s phrase) as a land bird.

We are not surprised to find the Duke in opposition to the scientific view of “rudimentary organs.” Only here the difference is more definitely a matter of terminology. A “rudimentary organ” in ordinary English may mean either an organ in process of development, or an organ

which for some reason has ceased to develop. In the language of the Duke of Argyll, it may be "on the stocks or on the wane," it may be a "germ" or a "remnant," it may be a new organ gradually developing, or an organ "atrophied by disuse." But it is much easier to point to organs which are probably "survivals" than to organs which are in process of development. It is true that science recognises both. The web in the grebe and coot, for instance, is quoted by Mr. Romanes as an instance of the growing organ, while the rudimentary organs of the cetacea are "survivals." There is, however, a tendency to limit the term "rudimentary organs" to those which are "atrophied by disuse," while those which point forward and not backward have no special name. But it is an overstatement of this to say that "it has been usual among the disciples of the Darwinian hypothesis to assume that, in all cases, these useless organs are not rudiments, but remains—not roots which may yet have the opportunity of flourishing, but branches of an old stem which has decayed and has left them as wrecks behind." Here the phrase "not rudiments, but remains," exactly points the contrast between the Duke's (which is also the common) use of the word "rudiment" and that which is generally adopted in scientific works.

Precisely the same difficulty reappears in the

discussion of the primitive man. Here the Duke, in order to rehabilitate the "noble savage," assumes that evolutionists hold that the most degraded savage is the nearest existing likeness of primitive man. And then it is argued that degradation or degeneration is as much an instance of the law of evolution as development is. But would any sane evolutionist deny this? The very case which the Duke cites, the Tierra del Fuegians, is an excellent one. For on almost any conceivable theory of their origin they must have come, or been driven, from a very different climate, and adapted themselves only too well to their new conditions. But if it is false, as it clearly is, to assume that the lower a tribe is morally and physically the more primitive it is, surely it is as arbitrary to account for everything by degradation. Taking for the moment the Bible view, our first parents, when expelled from the Garden of Eden, were probably as unlike the Tierra del Fuegians, or the Tasmanians, or the Eskimos, as they were unlike Europeans of the nineteenth century. The interaction of external conditions and internal nature, including under this last, however we may explain it, the fact of moral evil, will account for both progress and degradation. Here again a scientific evolutionist, though *quid* scientific man he knows nothing about the Garden of Eden, will be perfectly willing to admit the double development of

man from his primitive condition. Of the state before the Fall science knows nothing, and theology almost as little. And man after the Fall, at least in the early days, we may assume to have been free from the elaborate vices of civilisation. The Duke argues that—

“If there ever was a time when there existed on one spot of earth, or even on more spots than one, a single pair of human beings, it is impossible that they should have murdered their offspring, or that they should have killed and eaten each other. Accordingly it is admitted that cannibalism and infanticide, two of the commonest practices of savage and of barbarous life, cannot have been primeval” (p. 387).

And he adds—

“This is a conclusion of immense significance. . . . It breaks down the presumption that whatever is most savage is therefore probably the most ancient.”

We have no interest in defending the position here attacked, and we are inclined to think that, whatever may have happened in the way of infanticide, a single pair would have found it difficult to have killed and eaten each other. In the next page we are told that—

“There can have been no polygamy when as yet there was only a single pair, or when there were several single pairs widely separated from each other” (p. 388).

If these conclusions are as important as they are apparently true, the opponents of the Duke are in a difficult position.

And yet it is in this chapter, amidst arguments like these, that we find some of the Duke's most suggestive thoughts. The fact of sin and moral evil is one which few scientific men care to touch, and theologians are as little able to correlate it with any theory of nature. Is it true, apart from revelation, apart from religions which universally presuppose the reality of sin, that man is a great exception, and that the greater the evil in his life the farther he is removed from the rest of God's creation? Free will, sin, religion, are three closely related terms, and so far as we have any evidence to go upon they all belong to man alone. The great determinist controversy has not yet persuaded the ordinary man that he is not free, or that the brute has the same free will as he has. The fact of sin is not exorcised by being called "a purely Semitic conception." A history of religion, which resolves into a "ghost-theory," is self-condemned. Science can indeed put on one side as "metaphysical" or "theological" the various explanations of the fact, but the fact of sin itself must be explained or explained away, before any complete theory of man and nature can be found.

And the very *uniqueness* of the fact makes it so much harder to explain than to explain away. It is found, as far as we can see, nowhere else in nature. It is mysteriously connected with the

consciousness of freedom, against which physical science directs its whole artillery. Why should not *will* be a "mode of force"? And if so, why should not moral evil, of which religion and theology make so much, find its homologue, if not its explanation, in the arrested developments of nature, or in that which, in the lower creation, we call reversion to type? And this is all that we can get from science in explanation of realities which are "closer to us than breathing, nearer than hands and feet." The Duke has not given, nor attempted to give, a scientific explanation of moral evil, but he has emphasised the importance of the fact and the impossibility of ignoring it or explaining it away—

"That a being with powers of mind and capacities of enjoyment rising high above those which belong to any other creature, should alone of all these creatures have an innate tendency to use his powers, not only to his own detriment, but even to his own self-torture and destruction, is such an exception to all rule, such a departure from all order, and such a violation of all the reasonableness of nature, that we cannot think too much of the mystery it involves" (p. 447).

The two chapters on the nature and origin of religion, and on the corruptions of religion, are full of interest, but we cannot attempt to examine them now. We have, however, reserved, as worthy of special notice, the Duke's treatment of anthropomorphism and teleology. The chapters in which he deals with these (chap. vii. and viii.) are, perhaps,

the most useful in the book. It is a brave attempt to get rid of the popular "scare" in reference to these terms. And the fact is that, if it is a paradox, it is also a truism, that to banish teleology from the interpretation of nature is to make a science of nature impossible; while as for anthropomorphism, though there, too, there is a true and a false, we can no more get rid of it than we can lift the ground on which we stand.

With regard to anthropomorphism the Duke does not like the word, and in order to improve upon it, he gives us a philological *excursus*. He is not always happy in such attempts. In discussing chemical affinity he goes out of his way to tell us that "affinity between living things means, ordinarily, blood-relationship." In view of recent attempts to alter the marriage-law of Christendom, it seems almost a pity that this erroneous view is not more generally held. Again, the Duke finds fault with the theological term "original sin," because "the words do not seem accurately to express a condition of things which is always represented as not original (!), but secondary and superinduced." But these are nothing to the *excursus* on anthropomorphism. Here Dr. Howson is appealed to, and the result is the following note :—

"It has been pointed out to me by my distinguished friend and old tutor, Dr. Howson, the Dean of Chester, that the Greek word *μορφή* ('Form') had a very wide range of mean-

ing, and that (for example) in the New Testament it is applied to 'the form of knowledge and of the truth' (Rom. ii. 20), and to the 'form of godliness' (2 Tim. iii. 5), and to spiritual things in other passages. But although this is true, the word 'Anthropomorphism' seems to have been introduced in connection with the Greek habit of representing the divine personages of their mythology in the physical form of humanity; and it now always conveys a certain flavour of disparagement from its association with this materialistic habit and conception" (pp. 167, 168).

Now, with regard to the Dean's contribution, it unfortunately happens that in the two passages quoted the Greek word used is not *μορφή*, but *μόρφωσις*; while the Duke might have learned that, of the three instances in the New Testament in which alone *μορφή* does occur, two are to be found in the very noted passage Phil. ii. 6, 7, where *μορφή* is used first of the Divine and then of the human *nature* of our Lord, both being contrasted with the words *likeness* (*ὁμοίωμα*) and *fashion* (*σχῆμα*). There is, therefore, not the slightest need to read "anthropopsychism" for "anthropomorphism;" still less to coin such terrible words as Man-Formism and Man-Soulism. Terms cannot be treated etymologically apart from their history. Etymologically anthropomorphism means reading human nature into that which is not human. But in history the charge is only brought against those who interpret God and His doings *ex analogiâ hominis*. In its crudest form, it would ascribe to God a human body as well as human

passions, and the idea that God was subject to human limitations would linger on long after the coarser anthropomorphism disappeared. No more vigorous attack on what was afterwards called anthropomorphism is to be found than in the fragments of Xenophanes more than five hundred years before Christ. "There is one God, mightiest among gods and men, who neither in body nor in mind is like to man. Yet mortals think that the gods are begotten, and have raiment, and voice, and shape as they have. Surely if oxen and lions had hands, and could grave with their hands and do what men do, they would make their gods like themselves, horses would have horse-like gods, and oxen gods in the form of oxen."* The same note is struck by Plato in his protest against the popular and immoral views of God in his day.

Nearly eight hundred years later, before the end of the fourth century of Christianity, the heresy of the Anthropomorphites showed that even revelation had not destroyed the natural tendency. Curiously enough the word "anthropomorphism" seems to have come into scientific language through a direct reference to this heresy. Bacon, who is never tired of reminding us that it is a fallacy to attempt to read nature, or to read God's purposes in nature, in the light of what we should have done in His place, accuses the "stupid monks"† of having

* Ritter and Preller. *Hist. Phil. Graec.* § 83. Edit. Sept.

† *De Aug. Sc.* V. iv. *Neque enim credibile est quantum agmen*

revived in their cells the anthropomorphite heresy. From this time anthropomorphism became a catch-word to express any teleological view of nature. For Bacon saw that the danger of anthropomorphism beset teleology, or the doctrine of final causes, as then understood, and therefore teleology, though never denied by Bacon, is put on one side.

The advance which the modern science has made, by the help of evolution, has shown us that we have to choose between a science of nature which is nothing if not teleological, and the denial of science altogether. But teleology means a different thing now, so different that to revive the name will call forth an indignant repudiation from scientific men. And yet the Duke of Argyll is clearly right in arguing that every advance in science has strengthened the teleological argument, and as for the anthropomorphic heresy they only are guilty of it who persistently interpret the higher by the lower. The term may indeed be indefinitely extended, but it then becomes a *reductio ad absurdum*. It is anthropomorphism to assume that nature is intelligible because similar

idolorum philosophiae immiserit naturalium operationum ad similitudinem actionum humanarum reductio: Hoc ipsum, inquam, quod putetur talia natura facere, qualia homo facit. Neque multo meliora sunt ista quam haeresis anthropomorphitarum, in cellis ac solitudine stupidorum monachorum orta: aut sententia Epicuri huic ipsi in paganismo respondens, qui diis humanam figuram tribuebat.

adaptations in man would imply intelligence. It is anthropomorphism to assume that in animals those movements and cries, which in man would be signs of pain, mean pain in animals. But here we are interpreting the lower by the higher, and but little harm is done. The danger of anthropomorphism, as the Duke points out, lies in arguing from ourselves to anything above ourselves :—

“ Mind in ourselves is inseparably connected with organised matter, and especially with the brain. Of the nature of this connection we really know nothing. All the attempts to explain it or even to express it, are empty words. But the inference or conclusion that mind cannot exist, or cannot be recognised, except when seated in a brain, is evidently the rudest and coarsest conception in which anthropomorphism could possibly be embodied ” (p. 203).

To say that “ science knows only one kind of mind, that is, human,” becomes a transparent fallacy when we add, “ therefore no other mind exists.” But it is really only another form of the same tendency, though we no longer call it anthropomorphism, when we attempt to explain man in terms of animal, or animal in terms of vegetable, or slur over the difference between organic and inorganic by saying that there is only one chemistry—or again when, though we know of force only as interpreted to us in will, we jump to the conclusion that we can not only explain the higher by the lower, but the known in terms of the unknown.

There are some admirable passages in chapters

vii. and viii. on development as implying teleology, and adaptation being only the modern guise in which "purpose" reappears, we refer especially to pp. 282-289, and quote one or two passages :—

"Whether the theory of development be true or not, it is a theory saturated throughout with the ideas of utility and fitness, and of adaptation, as the governing principles and causes of the harmony of nature. Its central conception is, that in the history of organic life changes have somehow always come about exactly in proportion as the need of them arose." "The theory of development is not only consistent with teleological explanation, but it is founded on teleology and on nothing else." "The correlation of natural forces so adjusted as to work together for the production of use in the functions, for the enjoyments and for the beauty of life—this is the central idea of Mr. Darwin's system; and it is an idea which cannot be worked out in detail without habitual use of the language which is moulded on our own consciousness of the mental powers by which all our own adjustments are achieved. This is what, perhaps, the greatest observer that has ever lived cannot help observing in nature; and so his language is thoroughly anthropopsychic" (= anthropomorphic).

This is no mere polemical argument based on the lax use of words by Mr. Darwin. It is not that his language admits what his theory repudiates, but that his whole theory is meaningless unless the fact of adaptation be admitted. Verbal arguments are worth nothing, but the teleological character of evolution does not rest on verbal argument. The adaptation may be interpreted *theologically* or may be simply stated, but to deny it is scientific suicide.

As an attack upon evolution we believe "The Unity of Nature" is of little permanent value, but as being what in the intention of the author it is, an argument against materialism, we are inclined to think that the book holds a unique position. The Duke never shrinks from an unpopular view ; he accentuates, as few men can, forgotten truths. His weakness—in which he constantly exposes himself to scientific criticism—is his desire to "make points" against the evolution doctrine ; his strength lies in that which specialists are least able to criticise or understand.

III.

BISHOP TEMPLE'S BAMPTON
LECTURES.*

THE Christian Apologist of the nineteenth century has a difficult path to tread. On the one side of him lie the opposing, but equally rationalistic, systems of Gnosticism and Agnosticism; on the other is spread out the dangerous haze of Mysticism. If he endeavours to please all by making a division of territory, however satisfactory to himself, between the spheres of Reason and Faith, the mystical and rationalistic elements in human nature fall apart, and their champions range themselves against one another in battle array. If he emphasizes the omnipresence of God, and the unity of His purpose in nature and revelation, he is thought to be on the verge of Pantheism; if he insists on the separation of the Creator from His creation, he

* "The Relations between Religion and Science." Eight Lectures preached before the University of Oxford in the Year 1884, on the Foundation of the late Rev. John Bampton, M.A., Canon of Salisbury. By the Right Rev. Frederick, Lord Bishop of Exeter. London, 1884.

is open to the charge of Deism. If he lays stress on the antithesis between the moral and the physical, he is not only charged with accepting an unphilosophical dualism, but he also finds himself in a practical difficulty when he attempts to bring together the separated spheres. If, refusing to accept the dualism, he interprets the physical in terms of the moral, he is the champion of an exploded teleology, a Schoolman born out of due time ; while, if he interprets the moral in terms of the physical, he is at once branded as a fatalist, if not something worse.

One thing, however, would seem to be clear. He is the avowed enemy of Materialism, whatever that means, and the champion of the reality of spiritual forces and beings. This at once implies an opposition between Matter and Spirit, which a little while ago would have been generally understood, and as generally accepted. But the wall of partition is cracking at all points. Theology is shaking itself free from the last fetters of Manichæism. Science, under the guidance of Evolution, is becoming spiritual in an ever-widening spiral. A new Pantheism, claiming to be the last word of reason, boasts that it can gather up into itself the old distinctions, and give a more perfect synthesis than religion or Revealed Theology has ever given. On all hands it is agreed that the old Materialism is passing away, and the old artillery,

which was once used against it, has mainly an antiquarian interest.

Yet the controversy with Materialism is as real as ever, whether in the practical or in the speculative region. Like its opposite, idealism, it denotes rather a tendency than a theory, a tone of mind rather than a philosophical system. It is not a particular view of matter and its relation to spirit; it is the unavowed and often unconscious attempt to explain the higher in terms of the lower, and to ignore or treat lightly all that constitutes the difference. Idealism, on the other hand, is the attempt to explain the lower in terms of the higher, and incidentally to treat the lower as if it had but a relative existence, and must perish in the using.

It is clear that, in this broad distinction, the Christian Apologist is necessarily on the side of idealism. But idealism has almost as evil a sound as Materialism. If hitherto it has been somewhat of an exotic on English soil, it is naturalised in Germany, and, in its effects on Christian faith, it is as fatal as Materialism itself. More than this, the popular saying that "extremes meet" is nowhere more clearly verified than in the fact that, while Germany is showing some remarkable transitions from idealism to Materialism, the converse process is no less observable in England. To call Mr. Herbert Spencer a Materialist is to ignore the

advance which he has made on Hume and Comte. The "Unknowable" is as essential a part of his system as the "Absolute" is of Hegel's. Comte's law of the three stages is being exactly reversed. Positivism is rapidly, though often unconsciously, giving way to metaphysics, even in the mind of the unmetaphysical Englishman. Who shall say that metaphysics will not melt into theology?

In this curiously transitional, and, as it seems to many, incoherent phase of thought, it is not to be wondered at that Christian Apologists should take different views as to the side from which the chief danger comes. Some still feel most keenly the dangers of that materialistic and positivist view of the world, which is already passing away. Others imagine, not without reason, that the controversy is really with much that still remains of eighteenth-century Deism, which can not only claim on its side much of the language of science, but also a good deal of respectable Apologetics. Others, again, see in the near distance a greater danger than all, a false system which is all the more subtle because it has in it so much that is true; an idealism which has strange affinities with its opposite; a Pantheism which is as anti-Christian as Materialism itself; which fascinates by its promise of philosophical unity, and draws away the life-blood from high and noble effort by its implicit denial of free will. It is impossible to arrange

these three anti-Christian views in anything like a serial order, not merely because, as a fact, we find them co-existing, but because they are not in the same plane. Materialism and Pantheism pass into one another, but behind both lies the system—if it can be called a system—of Deism, which makes absolute the separation between God and the world on the one hand, and between the moral and the physical on the other. It is a religion of gaps. And the *nemesis* on it is seen in the modern attack on Personality and Freewill. “*Dépersonnaliser l’homme, c’est la tendance dominante à notre époque,*” and for this either Materialism or Pantheism will serve.

Now it is a curious fact that within the limits of a year, three books have been published, all in their way remarkable, though for very different reasons, all professing to deal with the difficulties to religious belief suggested by the present predominance of physical science. The first is Prof. Drummond’s “Natural Law in the Spiritual World ;” the second, the Duke of Argyll’s “Unity of Nature ;” and the third, Bishop Temple’s “Bampton Lectures.” It is only with the last of these that we propose specially to deal. But its value as a contribution to its subject will be best seen by contrasting it, in certain points, with the other two books we have mentioned.

Bishop Temple is mainly concerned to meet difficulties arising from Materialism, to assert the reality

of supernatural facts and a spiritual world, in the face of what has been proved, and much more that has been assumed, by positive science. His mission, therefore, is to contrast the moral and the physical, and to show the supremacy of the former. Prof. Drummond, on the other hand, is concerned mostly with the dangers which arise from the sharp separation of the two worlds ; from the practical Deism which is inherent in much of the modern science, even when it is not avowedly anti-Christian, and which has too often been accepted by Christian Apologists. He sees clearly that such a dualism is no longer possible. His work then is to bring the two separated spheres together, and he does so by a great assumption, the assumption of the absolute identity of law physical and moral, by which he imagines that he rescues theology from chaos and lawlessness. Finally, the Duke of Argyll, the most philosophical of the three, whatever we may think of his science and some of his criticism, sees ahead the great danger into which English thought is drifting—the danger of being so carried away by the conviction of the unity of nature as to lose sight of the lines which Nature herself has drawn ; a danger which in its extreme form we may call Pantheism, though it take the varying shapes of Eleaticism, or Stoicism, or Spinozism, or Hegelianism, or Spencerianism, or disguise itself in the ancient robe of Eastern religions.

It would, of course, be easy to play off one Apologist against the other, and make them mutually destructive. That is always possible. S. James only contradicts S. Paul when we forget that they were opposing different dangers. Yet it is worth noticing that Bishop Temple, in his opposition to Materialism, is constantly on the verge of that very Deism against which Prof. Drummond is writing; and Prof. Drummond, in vindicating the unity of the moral and the physical world, is involved in the very danger against which the whole of the Duke's argument is directed.

The attitude of the three writers towards evolution is very characteristic. Bishop Temple accepts it, but suggests limitations and safeguards. And yet, if anything is killing the old Materialism against which the Bishop is fighting, it is the doctrine of development. Prof. Drummond not only accepts evolution, he is carried away by it. For him it sounds the death-knell of Deism, and carries us on, without a break almost, from the physical to the moral; from earth to heaven. Finally, the Duke is in very imperfect sympathy with evolution as now commonly understood, mainly because his philosophical hold of the truth of the unity of nature, including man, makes him sensitive to the danger of substituting for unity a false and unreal uniformity, in which differences are not harmonized but ignored.

Having said so much by way of introduction, we proceed to the examination of Bishop Temple's "Bampton Lectures." No one can read them through, without feeling that in the new Bishop of London the Church of England possesses one whose clear and definite hold of the great facts of morals and religion is at least equalled by his fearless championship of them. Though, to use a modern phrase, he is "in touch with" the great movement of thought which has evolution for its watchword, he is yet uncompromising in his defence of the moral law and the fact of revelation. Indeed, he is so strong on this side, that he could afford sometimes to deal even more tenderly than he does with some of these views, too often identified with the Materialism with which they happen to be associated. The style of the lectures is admirable for the purpose. Clear and clean-cut, both in expression and in thought, it reveals at every turn the analytical tendencies of the mathematician. But the lectures are not only lucid, they are sometimes eloquent, especially when, in following his great master Kant, the writer speaks of the majesty and the universality of the moral law, and the supremacy of Conscience.

Taken as separate sermons, these eight lectures would, any of them, under any circumstances be called remarkable. But a treatise "sawn into lengths" for pulpit purposes necessarily labours

under great disadvantages, and these Bishop Temple's ingenuity has not entirely overcome. His scheme is a simple one, and at first seems workable. His subject being "The Relations between Science and Religion," he treats the related terms separately, and then the relation, whether of sympathy or opposition, which subsists between them. Thus, the first lecture treats of the origin of Science; the second, of the origin of Religion; and the third, of the collision between the two. The next four lectures deal with Evolution, and here, again, we have first a chapter on evolution in the physical world; then a chapter on evolution in religion, including the successive revelations of God; and then two chapters dealing with the collision between Revelation and Evolution on the one hand, and between Science and Miracles on the other. The final lecture is, of course, a summary and conclusion.

But this plan, clear as it looks in outline, is open to considerable inconveniences. Though the Lecturer does not fetter himself by his texts, but merely uses them as mottoes, the desire to give something of completeness to each separate sermon compels him to travel over the same ground more than once. Thus the titles of Lectures IV. and VI. are identical, except that the word "conflict" in the former is replaced by the word "collision" in the latter. There is also, and for the same

reason, a loss of artistic finish, because, in stating separately the elements of the problem, the Bishop constantly shows his hand, so that, when the solution is given in a subsequent chapter, it has lost something of its freshness and force. But these are minor matters after all, and there are few Bampton Lectures which are not open to the same objections.

The Lectures fall into two parts, the first three dealing with the relations of the physical and the moral, and the rest with the problems suggested by Evolution. It is plain, however, that the solution of the first and wider question carries with it the solution of the narrower one, which is at present most prominently before the world. It will, therefore, be better to follow the Bishop's order in our examination of the Bampton Lectures, though it may be necessary to devote more attention to the earlier question than to the later.

I. By Science the Bishop explains that he means that which of late has claimed to monopolise the name, almost to the exclusion of mathematics, metaphysics, and theology, viz. Physical Science. This includes all those inductive inquiries which presuppose the belief in the Uniformity of Nature, not merely in the sense in which every one presupposes it in his daily life, but as a basis for so-called scientific conclusions. What, then, justifies this presupposition of Science? It is, of course, no

new problem, and, as Bishop Temple says, it has never been so clearly put as by him who first stated it, David Hume. And what is his answer? Blank scepticism. We have no right to make the assumption, but we make it, and shall go on making it. The one thing that is clear is, that experience can never justify its own presuppositions; and the attempt to do so involves us in a circular argument.

The Bishop's strictures on Hume have naturally much in common with the criticism which was admirably made by Dr. Mozley in the Bampton Lectures of 1865, and in some well-known articles in the *Dublin Review* by Dr. Ward, rather more than ten years ago. It is, indeed, wonderful that, after Hume's clear statement of the question, John Stuart Mill could be trapped into the circular argument. Yet, with a strange illogicality, he maintained that, though scientific induction cannot prove the law, the informal and generally worthless "*inductio per simplicem enumerationem*" can. The obvious reply to this is, that, even if the circular argument had been avoided—which it clearly has not, since every inference, formal or informal, presupposes the Law—the strength of a chain is that of its weakest link, and therefore, if Mill's account were true, the certainty of scientific conclusions would be a delusion. Prof. Bain practically returns to the Humist position, and argues that the belief in the Uniformity of

Nature is a good working hypothesis, and is justified by results. "Without it, we can do nothing; with it, we can do anything." "We can give no reason, or evidence, for this uniformity." (Ded. Log. pp. 273, 274.) It is an assumption which we instinctively make, and on the whole it works well, whether it is absolutely true or not. But here we are at once involved in this difficulty. The certainty of any given scientific conclusion depends upon the certainty of some law of nature; that upon the general truth of Nature's Uniformity, "the ultimate major premise" of all scientific reasoning, and that is an assumption. The earth rests upon an elephant, the elephant on a tortoise, and the tortoise on—nothing! But the weakness of all such criticism of the empirical position is that it convinces nobody. It is like the arguments of the "good Bishop of Cloyne," of which Hume said, they "admit of no answer and produce no conviction." Hume's theory, or Mill's, may be wrong; but a criticism which seems to reduce physical science to an absurdity is of little value.

Hume's answer being rejected as inadequate, the Bishop proceeds to examine the answer of Kant. But in the transition the Law of Causation has somehow replaced the Law of Uniformity, and the two things, we would submit, are not identical. Here Bishop Temple introduces an ingenious illustration, which is worth quoting:—

"There is a well-known common toy called a kaleidoscope, in which bits of coloured glass placed at one end are seen through a small round hole at the other. The bits of glass are not arranged in any order whatever, and by shaking the instrument may be rearranged again and again indefinitely, and still without any order whatever. But however they may be arranged in themselves, they always form, as seen from the other end, a symmetrical pattern. The pattern indeed varies with every shake of the instrument, and consequent rearrangement of the bits of glass, but it is invariably symmetrical. Now the symmetry in this case is not in the bits of glass ; the colours are there, no doubt, but the symmetrical arrangement of them is not. The symmetry is entirely due to the instrument. And if a competent inquirer looks into the instrument and examines its construction, he will be able to lay down with absolute certainty the laws of that symmetry which every pattern as seen through the instrument must obey" (p. 13).

The application to the philosophy of Kant, as the Bishop understands it, is obvious, and as a popular illustration it is excellent. To read *into* nature the symmetry and order, on which science rests, is clearly not the same thing as to read it *in* nature. Yet unless it is *in nature* as well as *in our thinking*, that is to say, unless it is true objectively as well as subjectively, it is clear that we have not met the challenge of Scepticism. It is a mere restatement of the problem, to say that the common sense of ordinary people rejects the conclusions both of Hume and Kant, because ordinary people do not mean by causation invariable sequence, nor by the Uniformity of

Nature something which does not exist outside them.

What answer, then, has the Bishop to give? If Kant has not answered Hume, Hume is in possession of the field, and Scepticism is triumphant. No, says the Bishop,—

“this is the answer to the question, Why do we believe in the Uniformity of Nature? We believe it because we find it so. Millions on millions of observations concur in exhibiting this uniformity. And the longer our observation of Nature goes on, the greater do we find the extent of it. . . . We believe in the Uniformity of Nature because, as far as we can observe it, that is the character of Nature” (p. 28).

Here either the word “character,” as implying permanence, begs the question, or we are involved once more in Mill’s difficulty. For if the Uniformity of Nature rests on experience, it is indeed futile to appeal to it against the possibility of Miracles, but it is also futile to appeal to it in support of Science. Experience being only of the past, the “millions on millions of observations” can only prove that Nature has been uniform within the limits of our observation. They can account for the prejudice, but they cannot justify the belief. Hume’s question is therefore unanswered still. Nor does it help matters to say that the action of the human will lies at the root of cause. For the question is not where the conception of cause comes from, but what right we have to read it into those sequences which experience records. Of course, if we knew

that the processes of nature were the result of a will analogous to ours, or if we could reduce will to a mode of omnipresent force, the actual correspondence between the world of thinking and the world of being would be both explained and justified. But neither Hume nor Kant has done more than state the problem for us, though in very different terms, and Bishop Temple has merely repeated the commonsense answer of Reid, while his explanation of cause as will revives the old view of Bishop Berkeley.

It seems almost a pity that the Bishop should have touched such a great metaphysical question, if he was not prepared to pursue the question farther. For those who have gone so far with him will hardly be content to take the matter as settled in his way. If Kant's solution is not final, has Kant said the last word? What has been the verdict of subsequent speculation? What answers to the problem have been attempted since? It is eighty years since Kant died; a hundred since the publication of the "Critique of the Pure Reason." And even those, who in modern days have raised the cry of "Back to Kant," mean by it, apparently, not that Kant's solution is final, but that a reaction is setting in against certain developments of his teaching.

Yet on the whole, notwithstanding his criticism, the Bishop accepts Kant as the basis of his

Apology, though he supplements, or supersedes, the Kantian metaphysic by a kind of Scotch philosophy of Common Sense. And when he passes from Metaphysics to Morals he follows his great master very closely.

"The order of phenomena," he says, "is not the highest revelation of God, nor is the voice of Science the only, nor the most commanding, voice which speaks to us from Him. . . . There is within us a voice which tells of a supreme Law unchanged throughout all space and all time, which speaks with an authority entirely its own; which finds corroboration in the revelations of Science, but which never relies on these revelations as its primary or its ultimate sanction" (pp. 37, 38).

Correlating with the Moral Law is the "power or faculty we commonly call conscience," which acts through the will.

"The will is the man. It is the will that makes us responsible beings" (p. 46). "It is the will whereby the man takes his place in the world of phenomena" (*ibid.*). "It is then to the man, thus capable of appreciating a law superior in its nature to all phenomena, and bearing within himself the conviction of a personal identity underlying all the changes that may be encountered and endured, that is revealed from within the command to live for a moral purpose and believe in the ultimate supremacy of the moral over the physical. The voice within gives this command in two forms; it commands our duty and it commands our faith. The voice gives no proof, appeals to no evidence, but speaks as having a right to command, and requires our obedience by virtue of its own inherent superiority" (p. 47).

It commands our *duty*, and duty implies holi-

ness in ourselves, justice to our brother man, tenderness to all sentient beings, and the right use of created things for the purposes of the moral life. But it commands not only our duty, but our *faith*. If it were merely a higher kind of physical law it could not claim our reverence. It might even be our duty to disobey it, to assert our supremacy over it. But this cannot be so.

"In claiming our reverence as well as our obedience, in making its sanction consist in nothing but the fact of its own inherent majesty, the Moral Law calls on us to believe in its supremacy. It claims that it is the last and highest of all laws. The world before us is governed by uniformities as far as we can judge, but above and behind all these uniformities is the supreme uniformity, the eternal law of right and wrong, and all other laws, of whatever kind, must ultimately be harmonised by it alone. The Moral Law would be itself unjust if it bade us disregard all physical laws, and yet was itself subordinate to those physical laws. It has a right to require us to disregard everything but itself, if it be itself supreme ; if not, its claim would be unjust" (p. 53).

This reminds one of the fine passage in Kant's "Critique of the Practical Reason" :—

"*Duty!* Thou sublime and mighty name, that hast in thee nothing to attract or win, but challengest submission ; and yet dost threaten nothing to sway the will by that which may arouse natural terror or aversion, but merely holdest forth a Law ; a Law which of itself finds entrance into the mind, and, even while we disobey, against our will compels our reverence ; a Law in presence of which all inclinations grow dumb, even while they secretly rebel. What origin is there worthy of thee? Where can we find the root of thy noble descent, which proudly rejects all kinship with the inclinations?"—*Werke* vol. viii. p. 214.

This absolute supremacy of the Moral Law, the Bishop argues, carries with it the hope of immortality, in order that the individual may share in its ultimate triumph ; and it possesses the distinctive mark of personality, that is, a purpose and a will. For "the supremacy of the moral over the physical involves, in its very nature, an intention to be supreme," and hence we are led on to the belief that the Moral Law is the expression of a Personality, which is not our own, but above us.

"And thus as we ponder it, this Eternal Law is shown to be the very Eternal Himself, the Almighty God. . . . He does not make that law. He is that law. Almighty God and the Moral Law are different aspects of what is in itself one and the same. To hold fast to this is the fullest form of faith. To live by duty is in itself rudimentary religion. To believe that the rule of duty is supreme over all the universe is the first stage of Faith. To believe in Almighty God is the last and highest" (pp. 58, 59).

All this is, in itself, excellent. But we are now face to face with that difficulty, which has made the philosophy of Kant the starting-point for such opposite developments. The sceptical question has not been answered, and may at any moment reappear. For though the Bishop speaks of will as the basis of morality, and therefore of religion, and also as the origin of our conception of power which underlies the relation of cause and effect, it is plain that will is the *essence* of the one, and only the *interpretation* of the other. Conscience carries us

on to God. "Science by searching cannot find out God." My moral nature, then, must solve the problems which to my intellectual nature are insoluble. "Nature conceals God"—"Man reveals God" are the well-known words of the Kantian Jacobi. "Were it not for the voice speaking so clearly in my conscience and my heart," says another Kantian, Cardinal Newman, "I should be an atheist, or a pantheist, or a polytheist, when I looked into the world" ("Apologia," p. 377).

But such a severance between reason and conscience is as fatal as the admission that a thing may be true *secundum fidem*, though false *secundum rationem*. The gap rapidly widens, and men have to choose between a faith which overrides reason, and a reason which destroys faith. At first, and for a little while, they are conscious of the struggle so vividly expressed by one who declared himself "a heathen with the understanding, but a Christian with the spirit."

"There is a light in my heart, but when I seek to bring it into the understanding it is extinguished. Which illumination is the true one, that of the understanding, which discloses, indeed, well defined and fixed shapes, but behind them an abyss ; or that of the heart, which, while indeed it sends forth rays of promise upwards, is unable to supply the want of definite knowledge?"

But the question "Which illumination is the true one?" is one which must be answered. And if the saint and mystic choose one alternative, there

is at least something to be said for the Agnostic who claims for reason the knowable, and leaves the unknowable to Faith.

Even one who, like the Bishop, has adopted the former alternative, finds himself at once in a difficulty when, as a Christian Apologist, he attempts to deal with the relation to one another of the two separated spheres. It is clear that if Science demands uniformity and even, by implication, necessity, while morality and religion demand freedom, there is at least an apparent conflict between them. This conflict the Bishop tries to get rid of by a compromise, which consists in a more precise division of territory between the spheres of necessity and freedom. And the first condition of a compromise is that it should be such as could be accepted by both parties. It was almost impossible to bring the whole controversy within the limits of a sermon without sacrificing something of that clearness, which usually characterises the Bishop's style. And we are not quite sure that we understand him rightly. But the compromise seems to be this. First, the sphere of freedom must be allowed to be much narrower than is commonly supposed. The determinist is right in saying that our will is often determined when we think it free. The sense of responsibility and the "direct consciousness of being free" cannot, indeed, be put aside as "illu-

sions," but "there is no irresistible reason for claiming freedom for human action except when that action turns on the question of right and wrong" (p. 85). We are actually free, and conscious of our freedom "when, at the call of duty, in whatever form, the will directly interferes" (*ibid.*).

"The will, though always free, only asserts its freedom by obeying duty in spite of inclination, by disregarding the uniformity of nature in order to maintain the higher uniformity of the Moral Law. The freedom of the human will is but the assertion in particular of that universal supremacy of the moral over the physical in the last resort, which is an essential part of the very essence of the Moral Law. The freedom of the will is the Moral Law breaking into the world of phenomena, and thus behind the free will of man stands the power of God" (p. 90).

And what behind the world of phenomena? Physical force, apparently, which "in the last resort" has to give way to moral force. Yet behind the physical force, too, must lie the power of God.

But such a compromise does not really help matters. Even supposing the defenders of free will would consent to these limitations, they would still be contending for what the determinist cannot allow. "Science," we are told, "is not able, and from the nature of the case never will be able, to prove that the range of fixed law is universal, and that the will never does interfere to vary the actions

from what, without the will, they would have been " (p. 91). True, "Experience concludeth nothing universally," as Hobbes said long ago. And Science has not proved, and cannot prove, that the uniformity of nature is an universal law; but it can create a strong, and increasingly strong, presumption in its favour. And the narrower the territory supposed to be excepted from this uniformity, the greater the hope that some day there will be no excepted territory at all. But if, on the other hand, in one single act the will is free, the theory of determinism is false. We gain nothing, therefore, by limiting the sphere of freedom to a comparatively small area. It is the story of the Sibylline books over again. We offer less and less, but we always demand the same price, viz. an exception to the Law of Uniformity, and an admission that a natural science of man is impossible. And we have only to read Herbert Spencer's account of Will to see that, from his point of view, such a compromise has only to be stated to be at once rejected. It is no question of more or less. It is a question of the existence or non-existence of something besides physical necessity. "Psychical changes," he says, "either conform to law or they do not. If they do not conform to law, this work, in common with all works on the subject, is sheer nonsense; no science of Psychology is possible. If they do conform to law, there cannot be any

such thing as free will" (Psych. ii. 503). What we call will is only the resultant of all the forces acting upon us, and it follows invariably the line of least resistance. The "illusion" of freedom is due to the fact that the complexity of these forces makes the result to us incalculable. We *seem* to be free.

Bishop Temple sees that he is here dealing with a parallel* difficulty to that which underlies the scientific objection to Miracles, a question which he is to deal with in a subsequent lecture. But his treatment of that subject is prejudged by his Kantian view of the relation of the physical and the moral. The immediate difficulty, however, which suggests itself is,—If all this rests on the appeal to consciousness, why is it that, while Bishop Temple subordinates the physical to the moral, Herbert Spencer refuses to recognise the moral as anything but a mode of the physical? There must be a reason why that which, for the Bishop, is the basis of morality and religion, is for Herbert Spencer a mere "illusion." What reason is there?

The answer we have already given by implication. No philosopher can accept the Kantian

* The parallelism is, however, much less perfect than the Bishop thinks. The wildest champion of free will allows that there is much in the physical world over which man's will has no power. But no one, who is not a Deist, could say the same of the world in relation to God.

dualism as final. The metaphysical and the moral elements in that system are in imperfect cohesion. Unless we are content to take one side of the dualism and ignore the other, we must go on to some higher synthesis in which the existing dualism is transcended. If we follow Kant's lead, we may indeed sacrifice the physical to the moral. But it is a tremendous risk. For we at once provoke, from the side of science, a reaction against the supremacy of that order, in which alone God is said to reveal Himself, the human conscience and the human will. If the Kantian metaphysic fails to give a basis for an objective science of nature, is it any wonder that, in days of great and real scientific progress, such a system should be discredited even on its moral side?

Here then, again, as in the former question, we feel that Bishop Temple has not really met the difficulty. The problem before the world is to bring together into a unity that which is now separated into a dualism, without destroying the real distinction which exists between the separated parts. And the Bishop has merely emphasised the separation. But if, as of course the Bishop holds, God is not only "behind the free will of man," but also and no less "behind" the forces of nature, there is at least a probability that Kant has made the opposition far more absolute than it is. The history of philosophy is full of instances of

such exaggerated antitheses. Indeed, it seems as if man could not realise a distinction, till he has hypostatized the distinguished terms, and set them over against one another. And the moment that is done, it has to be undone; and the attempts to undo it are many and various, and only after much of wasted effort do men reach a point at which they can grasp a higher unity. All through the Bampton Lectures we yearn for a fuller recognition of the truth which underlies Pantheism, the unity of God's purpose throughout the physical and the moral world, and the immediateness of His action in both. And yet every discovery that is made in science is bringing out more perfectly the unity of man with nature, tracing in ever clearer outline the steps which lead upwards from inorganic matter to the creature which can think, and will, and worship.

With his splendid grasp of the greatness of man's moral nature, Bishop Temple might fearlessly have taken hold of all this, which is so often claimed for Materialism and Pantheism. He might have dared to say that the physical and the moral are different only in degree, because the regularity of physical nature is itself part of a moral purpose, is so claimed and appealed to again and again in the Bible. The physical and the moral world would then have been represented, not as two opposing spheres of which one dominates the other, but as the less perfect and the more perfect revelation of

the moral nature of God, of which the lower leads on to and prepares for the higher, without the tremendous gap which Kant created. It is just this claim of continuity which gives Prof. Drummond's book its fascination. People forget his Calvinistic doctrine of conversion, and his implicit denial of free will, in the unity which seems to bind together earth and heaven ; just as men forget the loss of freedom implied in accepting the system of Herbert Spencer, or the strange Eastern philosophies which are now attracting so much interest.

The temper of the age demands unity at any price. And the demand is surely a just one. What answer has Christian philosophy to make ? Here we believe the Duke of Argyll has done more than any one else to meet the Agnostic position. Man has his place in the unity of nature. He and the external world are in correspondence. He assumes that nature is intelligible, and he finds that he can interpret it. He takes for granted its kinship with himself, and he finds likenesses which cannot be accidental. He trusts nature and finds her true. He expects unity, and if he does not find it, he sees that it was because he fancied that the only unity was a mechanical uniformity, and he rises to the higher quest. He learns the interaction of the parts of nature upon one another. He sees not only the higher dependent on the lower, the animal on the vegetable, but the lower dependent

on the higher. He sees how in himself the moral rules the physical, while yet the physical is the basis of the moral. He knows himself to be a part of nature, and yet he is greater than nature. His greatness, as well as his littleness, in regard to her, is summed up in the words *Homo naturæ minister et interpret*. This is well brought out in some little-known verses on this text by Sir John Herschel. Speaking of the order and beauty of nature before man was, he asks—

“ Yet what availed, alas ! these glorious forms of Creation,
Forms of transcendent might—Beauty with Majesty joined ?
None to behold, and none to enjoy, and none to interpret !
Say, was the Work wrought out ? Say, was the Glory
complete ?
What could reflect, though dimly and faint, the Ineffable
Purpose,
Which from chaotic powers Order and Harmony drew ?
What but the reasoning spirit, the thought, and the faith,
and the feeling ?
What but the grateful sense, conscious of love and design ?
Man sprang forth at the final behest. His intelligent
worship
Filled up the void that was left. Nature at length had a
soul.”

In Bacon's language the *Interpretatio Naturæ* is the *Regnum Hominis*. If man can interpret Nature, he is greater than Nature: if Nature can be interpreted, it is a rational unity in actual harmony with the conscious reason of man. Here we get something like a rational justification for

our reasonings about objective truth; and an answer to the challenge of scepticism. We come to see that—

“Mind has no ‘moulds’ which have not themselves been moulded on the realities of the Universe—no ‘forms’ which it did not receive as a part and a consequence of its unity with the rest of nature. Its conceptions are not manufactured; they are developed. They are not made; they simply grow. The order of thought under which the human mind renders intelligible to itself all the phenomena of the Universe, is not an order which it invents, but an order which it simply feels and sees. And this ‘vision and faculty divine’ is a necessary consequence of its congenital relations with the whole system of Nature—from being bone of its bone, flesh of its flesh—from breathing its atmosphere, from living in its light, and from having with it a thousand points of contact visible and invisible, more than we can number or understand” (“Unity of Nature,” p. 151).

This bringing together of man and nature in no way weakens the argument from Conscience to God, on which Bishop Temple and Cardinal Newman lay such stress, and yet it cuts through many of the popular arguments about “anthropomorphism” in the interpretation of Nature. And it can claim, as we shall see, the whole weight of evolution on its side, even more entirely than the Bishop does. This, however, belongs more properly to the latter half of our subject.

II. Dr. Whewell used to say that every great scientific discovery went through three stages. First, people said, “It is absurd.” Then they said

"It is contrary to the Bible." And finally they said, "We always knew it was so." Now all these views are to be found in the present day as to the truth of evolution. There are some who seem to think that ridicule is the only weapon which need be used. There are many devout people, who honestly believe that evolution contradicts the Bible ; and there are a considerable number of the clergy, Roman as well as Anglican, who have almost persuaded themselves that they knew it all along, and that Moses and Aristotle and S. Thomas Aquinas had more than hinted it. Bishop Temple has certainly outgrown the two earlier stages. He freely and frankly accepts evolution as an adequate and intelligible account of the "creation of form" as distinguished from "the creation of matter," to use Haeckel's phraseology. Of the creation of matter, or what theologians call "primary creation," science knows nothing. Haeckel, Tyndall, Darwin, Spencer, might all have been quoted on this point. But evolution proposes to account for secondary creation, and more than this, claims to have won over to the side of secondary creation much that has been conventionally spoken of as primary. This the Bishop states well and clearly :—

"We all distinguish between the original creation of the material world and the history of it ever since. And we have, nay, all men have, been accustomed to assign to the

original creation a great deal that Science is now disposed to assign to the history. But the distinction between the original creation and the subsequent history would still remain, and for ever remain, although the portion assigned to the one may be less, and that assigned to the other larger, than was formerly supposed. However far back Science may be able to push its beginning, there still must lie behind that beginning the original act of creation—creation not of matter only, but of the various kinds of matter, and of the laws governing all and each of those kinds, and of the distribution of this matter in space" (pp. 106, 107).

The whole question, then, is narrowed down to the *modus creandi*. And here we have to choose between the old theory of "special creations" and the new theory of evolution. And it may fairly be argued that for theology and for religion it is a question profoundly unimportant, while from a scientific point of view there is not a vestige of evidence for special creation, that is to say, for the creation of species with no intelligible relation to one another, and there is not only analogical evidence for the creation of species by evolution, but there is the actual creation of new forms by evolution going on before our eyes. Even for the purposes of ordinary life the theory of evolution has one advantage, which Mr. Ruskin points out in a characteristic passage:—

"Whether," he says, "your Creator shaped you with fingers, or tools, as a sculptor would a lump of clay, or gradually raised you to manhood through a series of inferior forms, is only of moment to you in this respect—that, in the

one case, you cannot expect your children to be nobler creatures than you are yourselves—in the other, every act and thought of your present life may be hastening the advent of a race which will look back to you, their fathers, (and you ought at least to have attained the dignity of desiring it may be so) with incredulous disdain” (“Aratra Pentelici,” 1879, p. 99).

But evolution is quoted as having shaken what is called the old argument from design.

“If animals were not made as we see them, but evolved by natural law, still more if it appear that their wonderful adaptation to their surroundings is due to the influence of those surroundings, it might seem as if we could no longer speak of design as exhibited in their various organs ; the organs, we might say, grow of themselves, some suitable and some unsuitable to the life of the creatures to which they belonged, and the unsuitable have perished and the suitable have survived” (p. 111).

The Bishop then proceeds to rehabilitate the teleological argument, and to maintain that even Paley’s statement would be strengthened if it were discovered that the watch picked up on the heath is not only marvellously adapted in all its parts, but capable of producing, in due time, a better watch than itself. But the inherent Deism of Paley’s illustration, which Bishop Temple himself notices, makes it an unfortunate one to use, and we are not sure that in the Bishop’s resetting of it the Deism is not as pronounced as it is in Paley himself. We are told that, whether in the case of special creation or evolution,

"the creative power remains the same; the design with which that creative power was exercised remains the same. God did not make the things, we may say; no, but He made them make themselves. And surely this rather adds than withdraws force from the great argument. It seems in itself something more majestic, something more befitting Him to whom a thousand years are as one day, and one day as a thousand years, thus to impress His will *once for all* on His creation, and provide for all its countless variety by His *one original impress*, than by special acts of creation to be perpetually modifying what He had previously made."

The latter part of this argument is Hume* pure and simple, and it might be none the worse for that if it were not that, in the words we have italicised, Hume's Deism reappears. It is one thing to speak of God as "declaring the end from the beginning," it is another to use language which seems to imply, however little it was intended, that God withdraws Himself from His creation, and leaves it to evolve itself, though according to a foreseen and fore-ordered plan. Yet surely that is no unfair inference from the passage we have quoted, or from the following paragraph, with which this part of the argument concludes: "What

* It is impossible not to believe that the Bishop had in his mind the following passage: "It argues surely more power in the Deity to delegate a certain degree of power to inferior creatures, than to produce everything by His own immediate volition. It argues more wisdom to contrive at first the fabric of the world with such perfect foresight, that of itself, and by its proper operation, it may serve all the purposes of providence, than if the great Creator were obliged at every moment to adjust its parts, and animate by His breath all the wheels of that stupendous machine" ("Enquiry into Human Understanding," § 7).

conception of foresight and purpose can rise above that which imagines all history gathered as it were into one original creative act from which the infinite variety of the universe has come, and more is coming yet?"

It is of the first importance that a Christian Apologist should not use language which seems to invest the world with a power of self-unfolding, for it is this, more than any theory of evolution, which contradicts the belief in God. But, for the matter immediately under discussion, the argument from design, though it is quite true that the old argument must be reset, it is equally true that evolution makes the argument infinitely stronger than it has ever been. The Bishop is right in maintaining that "what is touched by this doctrine is not the evidence of design, but the mode in which the design was executed" (p. 114). But instead of saying, as he does, that the stress of the argument is shifted back from the visible adaptation to "the original properties impressed on matter from the beginning" which made such adaptation possible, we should maintain that every adaptation, however minute, is in itself a new proof of purpose, design, and plan. The elimination of chance in modern scientific inquiry throws us back at every point on the *rationality* of nature, in all its parts. And, if we could get rid of the old crude views, associated with the word in unscientific

days, this is what a teleological account of nature means. As long as men believed—if they ever did believe—in a “fortuitous concourse of atoms,” the creed they held was implicitly atheistic. But it was also in the strict sense irrational, and made the science of nature impossible. It was by a true instinct that Bacon, in his hatred of the “rational” method of Aristotle, threw himself into the arms of the Atomists. But if modern science had followed his lead, the system of Darwin and Spencer would have been as impossible for science as that of Hegel. We have only to compare the Empedoclean account of the “origin of species” with that of Darwin to see that the latter view is penetrated through and through with that very “rationalism” with which Bacon charged the schoolmen. Yet even the Empedoclean view can hardly be stated without bringing in the notion of design, for the simple reason that adaptation already implies it. The monstrous births happened by chance, bulls with human faces, and so on. Yet the law of their survival was a rational law—“wherever all the parts came together, just as if it had happened by design, these, because they were suitably adapted, chanced to survive, while the others perished, and perish still.” * Compare this with Darwin, and in a moment we see that by the elimination of chance, which is the great triumph of modern science, the

* Arist. “Phys. Ausc.” ii. 7.

whole process of development is assumed to be rational. An organ which exists, exists because it has a function, a work to do ; if it has no function it is at once obsolescent. If an organ is "rudimentary," it is because it is a "remnant" or a "germ," *i.e.* it has a reason in the past or in the future.*

This is quite consistent with the fact that evolutionists repudiate teleology, which is associated in their minds with all which is opposed to an honest interpretation of nature ; but the moment they forget their polemic they become teleological. Perhaps the most remarkable instance of the contradiction existing between a materialist's hatred of theology, and an evolutionist's faithfulness to nature, is to be found in Haeckel's "History of Creation." On p. 19, vol. i. (Eng. Translat.) we find the words : "I maintain with regard to the much-talked-of 'purpose in nature,' that it really has no existence but for those persons who observe phenomena in animals and plants in the most superficial manner." And yet on p. 5 of the same work, in the formal distinction between organic and inorganic, we are told that—"We designate as *Organisms*, or *Organic bodies*, all *living creatures* or *animated bodies*; therefore all plants and animals, man included ; for in them we can almost always prove

* On the teleological aspect of evolution, see Duke of Argyll's "Unity of Nature," pp. 282-289. And cf. *supra*, p. 54.

a combination of various parts (instruments or organs) which work together *for the purpose of producing the phenomena of life.*"

If a science of nature is possible, nature must be intelligible, and if intelligible, then rational. And we are at least carried on with irresistible force to the conclusion, that its ultimate explanation must be spiritual, not material. This is why Materialism is giving way to Pantheism. And "le Christianisme s'il veut triompher du panthéisme, doit l'absorber."

It would have been interesting to have had from the Bishop a fuller treatment of evolution as applied to the spiritual nature of man. This would have seemed to be a natural and necessary connecting link between evolution in the physical world and the evolution of religious knowledge. Yet it is hardly touched upon, except when the limits of evolution are spoken of. No doubt "man's dignity consists in his possession of the spiritual faculty, and not in the method by which he became possessed of it" (p. 187). But considering the hold which the teaching of Herbert Spencer has over some minds, and the fear exhibited by others when evolution is applied to such problems, a few words of warning and reassurance would not have been out of place. And therefore we make no apology for quoting the following words from Dr. Martineau:

"The uneasiness so often manifested lest the theory of

Evolution should eat away the very basis of human duty has no justification, except in the general prevalence of the very confusion of thought which it exemplifies. We have long been familiar with the process of growth in organisms, with the weaving and discrimination of tissue and the modification of brain; and the extension of the process of development from the thread of the single animal life to the chain of species introduces no disturbing problem: it supplies new chapters of natural history; but changes not a word in the eternal law of right" ("Types of Ethical Theory," Preface, p. xiv.).

The Bishop seems to hold the Creationist view (p. 186), that, when the body was prepared for it, the soul was infused "by a direct creative act," which science cannot yet disprove; and he finds a parallel in the introduction of life, which science cannot yet prove to have been evolved from inorganic matter. But if Creationism is true, it needs resetting as much as the teleological argument does, in the face of the scientific doctrine of evolution; and it seems a pity to associate it with the question of the origin of life, and still more to revive, even as a possibility, the idea once thrown out by Sir Wm. Thompson, that life might have been brought to the earth on a meteoric stone! As for the question of the origin of life, enough *odium scientificum* has gathered round it, but it is quite a modern idea to make it of theological importance. The greatest of the Schoolmen took vivification by putrefaction as a matter of course. So did Bacon, the father of modern science. To-day,

however, science finds the evidence, so far as it is known, against it ; and Prof. Drummond stereotypes the present view, and finds in it a scientific basis for Calvinism.*

There is, however, one point on which Bishop Temple is quite clear, though he rather states than proves it, viz. that "the principle of the Moral Law, its universality, its supremacy, cannot come out of any development of human nature, any more than the necessity of mathematical truth can so come" (p. 180). Here we touch one of the burning questions of the day, and we regret that the Bishop has been obliged to treat it so briefly. But it is easy to suggest questions which might fitly

* The history of the belief in spontaneous generation is as instructive as it is interesting. Till a century ago everybody accepted it. The French Materialists then discovered that it might be used as a new argument for Materialism. Theologians fell into the trap and, instead of denying the inference, denied the fact. In the present day men of science have discovered that whether it is an argument for Materialism or not, so far as the evidence goes, *it is not true*. And some few theologians have discovered that whether it is true or not is absolutely *unimportant to theology*. It is curious to find Rosmini arguing that "spontaneous generations would never prove that matter was dead ; on the contrary, they would clearly prove that it was alive" (Psych.' book iv. c. xiv.). While "as for Pantheism, it is altogether indifferent whether we admit that the animate substances in the universe are more or fewer, some or all. So long as we admit that they are created, and therefore altogether distinct from the Creator, Pantheism is excluded" (ch. xv.). On the whole he inclines to believe that the language of the Mosaic cosmogony favours spontaneous generation, and that the Spirit brooding upon the face of the waters is an implicit denial of the existence of "dead" matter.

have been discussed under the heading of the Relations between Science and Religion, and the wonder is that Bishop Temple has got so much into a course of eight sermons without the help of notes or appendix.

But if the Bishop has but lightly touched the question of the origin of the spiritual faculty in man, he has admirably traced the evolution of moral truth. Here he is quite at his best. Many popular fallacies he cuts through by the quiet remark, that a regular growth in knowledge is not commonly used as an argument against its substantial truth (p. 129), and *pari ratione* the fact that there has been a development in religious belief is no argument to show that the belief thus developed has no real foundation. "The pure subjectivity of Religion, to use technical language, is no more proved by this argument than the pure subjectivity of Science" (p. 132). Yet there is a difference between Science and Religion which is of absolute importance. It is a difference of tone and temper, rather than of anything else. Science, in proportion as it approaches perfection, discards everything but the claim to have read nature truly; Religion, the higher and the purer it is, the more fearlessly it claims to rest on a Divine Revelation. Science has its thinkers; Religion its prophets and its priests. The language of Science is *Εὔρηκα*; the language of Religion is *οἰκονομίαν πεπιστεύμαι*.

The one claims *discovery*, the other *Revelation*. It is easy to obscure this distinction by showing that every discovery in science is an unfolding of the nature of God, while every Revelation finds its main evidence within the human soul. But the distinction is a real one. Looking back over that series of Revelations on which Christianity claims to rest,—

“we can see that the teaching in its successive stages was a development, but it always took the form of a revelation. And its life was due to that fact. As far as it is possible to judge, that union between Morality and Religion, between duty and faith, without which both religion and morality soon wither out of human consciences, can only be secured—has only been secured—by presenting spiritual truth in this form of a revelation” (p. 144). “At first sight it seems to follow that, being an evolution, it may well be no more than the outcome of the working of the natural forces. But look closer and you see the undeniable fact, that all these developments by the working of natural forces have perished. Not Socrates, nor Plato, nor Aristotle, nor the Stoics, nor Philo, have been able to lay hold of mankind, nor have their moral systems in any large degree satisfied our spiritual faculty. Revelation, and revelation alone, has taught us ; and it is from the teaching of revelation that men have obtained the very knowledge which some now use to show that there was no need of revelation” (p. 158). “We find it impossible to assert that, by any working of human thought, this morality could have been obtained by the spiritual faculty unaided” (p. 146).

What the evolution was, is seen in the progressive morality of the Old Testament, always pointing towards the Gospel finally revealed. If the logical

order is from Duty to God, the chronological and historical order has been from God to Duty. Hence the imperfection of even revealed morality in its earlier stages.

“The reverence for God required then was as great as the reverence required now. But the conception of the holiness, which is the main object of that reverence, has changed; has in fact been purified and cleared. And the change is traceable in the Old Testament. The prophets teach a higher morality than is found in the earlier books. Cruelty is condemned as it had not been before. The heathen are not regarded as outside God’s love, and the future embraces them in His mercy, even if the present does not. Conscience begins to be recognised and appealed to. Idolatry is not merely forbidden, its folly is exposed; it is treated not only with condemnation, but with scorn. Individual responsibility is insisted on” (p. 140).

Yet, in spite of the growth observable in the Old Testament, the revelation of the Gospel is so much higher, that it seems absolutely new. It is not merely a widening of area, a lengthening out of the moral horizon; it is a new morality, a new view of human nature in its relation to God through the Cross of Christ; an authoritative affirmation of that which man craves after, the immortality of the soul and the resurrection of the body, “sealed by the Resurrection of our Lord, ever since then the historical centre of the Christian Faith.” Finally, in it those two truths, of which in the Old Testament we can trace dim and shadowy outlines, and of which we may see hints even in the speculations

of heathen philosophy, the doctrine of the Trinity in Unity, and of the Incarnation, are clearly set forth. And it is in the Christian form, and only in that form, that these doctrines have appealed to the spiritual nature of man.

But the claim to a revelation carries with it the belief in miracles. Progress in spiritual knowledge has been the work, not of great philosophical thinkers, but of men who claimed to be Prophets and Apostles inspired by God, and professed to prove their mission by the evidence of supernatural powers. "And the teaching of the Bible cannot be dissociated from the miraculous element in it which is connected with that teaching." Not only in the Old Testament, but in the New, "the miracles are embedded in, are indeed intertwined with, the narrative" (p. 153). Particular miracles may be held to be insufficiently attested, but—

"the exclusion of the miraculous element altogether is not possible without a complete surrender of the position taken up by the first Christian teachers" (pp. 154, 155). "It is not possible to get rid of miracles nor the belief in miracles from the history of the Apostles. They testify to our Lord's Resurrection as to an actual fact, and make it the basis of all their preaching. They testify to our Lord's miracles as part of the character of His life. It is necessary to maintain that they were mere fanatics with no claim to respect, but rather to the pity which we feel for utterly ignorant goodness, if we are to hold that no miracle was ever wrought by our Lord. It is difficult to maintain even their honesty, if they preached the Resurrection of our Lord without any basis of fact to rest on. No man who is not determined

to uphold an opinion at all hazards, can question that S. Paul and S. Peter believed that our Lord rose from the dead, and that they died for and in that belief" (pp. 207, 208). "The Jesus Christ presented to us in the New Testament would become a different person if the miracles were removed. And if He claimed to possess and exercise this power, the evidence becomes the evidence of one who must have known and whom we cannot disbelieve" (p. 209).

If Bishop Temple had done nothing in the Bampton Lectures, but give expression to his own clear and definite belief in the Resurrection of Jesus Christ and the essential relation of miracles with the great moral revelation of Christianity, he would have reassured many and earned the gratitude of the Christian world. But he has done more than this, more even than he claims to have done. He has shown us the Resurrection as the culmination of a series of revelations of the moral nature of God; and, though miracles must hold a subordinate place as evidences, as compared with the assent of the reason and the conscience, he has shown us how impossible it is to take the moral revelation as a discovery round which a kind of miraculous halo has grown. And in doing this he has "rehabilitated," to use a modern phrase, the miracles of the Old Testament. For, if the Resurrection is a fact, it does more than overthrow the *à priori* argument against miracles. It shifts the whole balance of probability. The amount of evidence requisite for proving any fact depends upon the

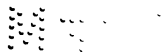
inherent probability of the fact. And if the culmination of the spiritual evolution of man is sealed by a miracle, it is *a priori* probable that the earlier stages of that evolution should show signs of the same character. If the Old Testament Revelation points forward to the New, the Gospel throws back its supernatural light upon the Old.

All this makes us regret the more that the Bishop's *rationale* of miracles is so inadequate. The sharp severance between the physical and the moral, which shows itself all through the Bishop's arguments, and at times becomes almost deistic, makes the reconciliation of Science and Miracles almost hopeless. It helps nothing to reduce miracles to as small a number as possible, though this method is often tried, and the Bishop himself is not quite free from it. Mr. Matthew Arnold's criticism of this method, which we remember to have read somewhere, is that it is like saying that science forbids us to believe that Cinderella's pumpkin was changed into a chariot-and-six, but it might have been changed into a one-horse chaise. Here, as we argued in the matter of the freedom of the will, physical uniformity claims the whole ground, and looks upon no concession as worth having unless it be a concession of the whole; and the very terminology which the Bishop unfortunately adopts, is as irritating to the theologian as to the man of science.

11

A miracle, whatever it is, cannot be an "interference." Yet this word is used again and again. The man of science is not unnaturally jealous of any "interference" with the orderly processes which he observes, and registers, and interprets; and the theologian does not believe that there is anything with which God can "interfere." Can God "interfere with" the Moral Law? No; because it is the revelation of His own nature. He cannot interfere with Himself. Can He then "interfere with" physical law? Clearly not. For physical law is also a revelation of Himself. It is the orderly method by which He acts. Are there then no miracles? Yes; but miracles are not the cataclysmal irruptions of the moral into the domain of the physical. "Nature," says Aristotle, "is not full of episodes, like a bad tragedy." "If 'Order is Heaven's first law,' it is also its last."

It is not that we require from an Apologist a new "theory" of Miracles, but we may, and do, require of him that he should fairly face the present conditions of the problem. The mechanical view of nature, which has dominated physical inquiries for the last two hundred years, from Bacon to Comte, from Descartes to Kant, is now passing away with the Deism which was its theological counterpart. And the new view, which the remarkable progress in biological investigations has fostered and spread, if not avowedly teleological, is



at least implicitly so. The general acceptance of the mechanical view made it, perhaps, necessary in the past to explain Miracles as the neutralising of physical force by moral force. But it never was theologically true. It never found any countenance in the Bible. And it could not but enlist against itself the more philosophical students of nature.

Certainly whether such an explanation was necessary or not in former days, it no longer appeals to men. The assumptions with which we approach the question are changed, and the change is entirely in the direction of making the fact of Miracles more intelligible. It is possible now to take hold of the truth which, though it is as old as monotheism, appears as a new discovery in the nineteenth-century science, the truth that the physical and the moral are not "sundered as with an axe," but have a common source; that though the moral is higher than the physical, the difference is one of degree and not of kind; and therefore that there is a moral purpose even in the so-called uniformity of Nature—a truth which the older teleology in a crude and anthropomorphic way had seized—while, in what we call the moral world, there is law and order and rationality, as much as in that world which we call physical. Of course Bishop Temple would not deny this. Indeed, in his closing lecture, he says plainly that "the physical and spiritual world are

one whole, and that neither is complete without the other" (p. 246); and that "it would be a serious difficulty if things physical and things spiritual were cut off from one another by an absolute gulf" (p. 234). But this does not prevent him from constantly speaking of the physical order, as if God had somehow delegated His powers to subordinate forces, reserving only to Himself the right of veto on their exercise; while even His exercise of that power is "exceedingly rare, and for that reason need not be taken into account in the investigation of nature" (p. 229).

Consequently the Bishop does not avail himself of all that evolution is doing to prove the unity of God's work in nature and in grace by bringing together the separated spheres. This is not to destroy the difference between them, though Materialists will eagerly so interpret it. In one sense, indeed, it does make a miracle seem less miraculous, because it shows the distinction between the natural and the supernatural to be less absolute than we once supposed. Yet long ago Bishop Butler, whose firm belief in God's immediate action in nature kept him from the Deism of his day, maintained that "natural" could only mean "*stated, fixed, or settled,*" while that which we call supernatural or miraculous might be, to perfect knowledge, "as natural as the visible known course of things appear to us." Here, as in many other great

questions, it is possible so to state the problem as to make a solution practically impossible. And those who follow Kant in exalting the moral at the expense of the physical, find themselves in a double difficulty ;—they fear all those inquiries which seek to trace the physical basis of man's moral nature ; while yet they are compelled, unless they abandon miracles, to bridge over somehow the gap which they have made.

The truth we have yet to realise is that neither in nature alone, nor in conscience alone, have we a perfect revelation of God. Each is complementary of the other. The natural order, "the *stated, fixed, and settled,*" has its purpose, not only that man may adapt himself to his physical environment, but that he may recognise miracles when they happen, and realise that he is in the presence of an order of being higher than the physical order. If everything were haphazard, if there were no uniformities, there would be nothing miraculous, though much might be unusual. On the other hand, if we had only physical uniformity to argue from, God's nature would be revealed as mechanical, not moral ; or rather we should not be able to infer the existence of anything but Force.

The mistake of the older teleology was the assumption that all that we know of God, His goodness, and His Personality, no less than His rationality and power, might be discovered from

the physical world ; and unconsciously men came to read into nature what was revealed only through the higher development of Conscience. But at least they did not make the mistake of giving up the physical world, as though it were but a tissue of mechanical forces, which it was the glory of man, in his Personality, to triumph over. They had seized the truth that everything which is, is a revelation of God : they had not seized, what our age has grasped so firmly, the truth that God's revelation of Himself is gradual and progressive.

The old, and still common, explanation of a miracle, as the intervention of a higher law, is good and true in so far as that it assumes a kinship between the miracle and the uniformity which it supersedes ; only it too often has had for its result the making the miracle mechanical, like the uniformity, instead of making the law moral, like the miracle. But the higher and truer view of nature, which is now supplanting the old, must in time put an end to the mechanical theory. Miracles cannot much longer be spoken of as "interferences." They are revelations of a higher life ; the prophecies, as it were, of a new stage in the development of creation. They have their analogue all down the scale of being. When the vegetable takes up into itself and assimilates inorganic matter, we do not say that the organic interferes with the inorganic. Perhaps some day we shall know that here too we

have stereotyped a false antithesis. When the insect fertilises the flower, we do not say that the animal world is interfering with the vegetable. And when a miracle forces upon us the consciousness, that what we call the physical order must be interpreted by, and find its final explanation in, that higher revelation which, in a special sense, we call the moral,—or when He Who took Human Nature into God breaks the bonds of death because “it was not possible that He should be holden of it,”—we have no more right here than in the other cases to speak of “interference.” God, who is omnipresent in nature and in grace, cannot interfere with Himself.

If Christianity is to hold its own as a true philosophy of the universe, it must abandon explicitly and implicitly the Kantian dualism. Let science prove to us, as it is proving every day, the rational cohesion of all the parts of nature which fall under its ken ; let morals and religion contend, fearlessly as the Bampton Lecturer has done, for the reality of the spiritual world and its supernatural revelation ; and the Christian Apologist will have an easier task before him. It will be his to show, not merely that the orderly method and the Divine purpose do not contradict one another, but that each implies the other, and is incomplete without it ; that we have already glimpses of a unity which is higher than uni-

formity ; that there is, if without irreverence we may use the phrase, a *communicatio idiomatum* between the physical and the moral, that seen in the light of God they are the convex and concave of Truth, and both alike, though in different degrees, "the vision of Him Who reigns."

IV.

THE SERVICE OF MAN.*

SOME people, who would wish to be considered Christian apologists, have adopted a method which, whatever else may be said of it, has, at least, the merit of brevity. It consists in assuming certain anti-Christian principles and working them out to what seem to be their logical conclusion, and then drawing a terrible contrast between the Christian and the anti-Christian view. The objection to such a method is not only that, instead of meeting real difficulties, it appeals to an *ad terrorem* argument, but that it is always possible for an opponent to assert that the conclusions do not necessarily follow from the premisses, and are not, as a matter of fact, admitted by those with whom the premisses are accepted.

In reviewing the book before us there is no fear of such an answer. Mr. Morison has himself developed his premisses to their conclusion, and set

* "The Service of Man. An Essay towards the Religion of the Future." By James Cotter Morison. Kegan Paul, Trench & Co.

us the example of drawing a contrast between his view and Christianity. And we are heartily grateful to him for it. Nothing clears the air like a statement of his position by a man who has the courage of his opinions. What will probably first strike those who are familiar with earlier stages of the controversy is the remarkable change of front observable in Mr. Morison's volume when compared with the writings of some whom we have been accustomed to think of as representatives of the same views. Inferences which have been drawn from the same principles, and indignantly repudiated, by men for instance like J. S. Mill, are now openly and even defiantly accepted. Indeed, there is hardly a charge commonly brought by Christians against Positivism which Mr. Morison does not welcome as a legitimate deduction from his premisses.

Much of the glamour which "The Service of Man," on its first appearance, threw over its readers has already passed away. We may look at it now calmly and dispassionately, and perhaps estimate its value more truly than would have been possible when the book was new. New or old, however, it will lose no advantage which can be gained by a good literary style, exceedingly lucid English, and excellent arrangement and marshalling of materials. But when we have said this we have said all. The destructive part is neither new, nor in itself, we

think, strong : the intellectual objections sometimes fall to the level of Mr. Bradlaugh's "Freethinker's Text-book ;" while the moral objections, which to most people will seem the newest—though S. Augustine tells us they were urged in his day, and they seem to have been not entirely unknown in the days of S. Paul—may, when fairly stated, be left to the moral consciousness of civilised man. The constructive part is a fragment, the author having been unable, from ill-health, to finish his work according to its original plan. And this is the more disappointing because, having demolished the happy delusion of Christianity, he leaves us face to face with inevitable evil, for which he has not even a palliative to suggest :—

"I believe (says Mr. Morison in his Preface) we are approaching to a great catastrophe in our industrial system, which will be a calamity without precedent since the Black Death of the fourteenth century. . . . One would think that it was obvious to casual observation that we are commencing to descend an incline, down which we shall move with accelerated speed, to be brought up at last in general calamity. The difficulty of taking new views of old things and conditions, can alone blind men from seeing the fate before them. The numbers of the unemployed in all large centres are growing from year to year. The palliatives of charity, public-works, state-aid in every form, are still talked of as if there were hope in them. But before the century is at an end, the illusion will have vanished. The production of wealth, as it has obtained in the past, can continue no longer. The State will be impoverished along with individuals ; and with increasing charges will have less revenues to meet them. Then

we shall know what a general or universal commercial catastrophe really means, when the famishing unemployed will not be counted by thousands, but millions ; when a page of the *Times* will suffice for the business advertisements of London ; and when the richest will be glad to live on the little capital they have left, never thinking of interest" (pp. xiii., xvii.).

This is a sufficiently gloomy outlook, and as Mr. Morison has no remedy to suggest, it is doubtful whether it is for "the service of man" to rob the world even of an ill-grounded hope. When Savonarola wrote "*De ruina mundi*" and "*De ruina ecclesiae*," and prophesied calamity from the pulpit of the Duomo, he had a practical remedy, which he at least believed in. His conclusion was always the same—"Repent! Reform your lives! Avert God's threatened judgment!" But then Savonarola was a Christian and an enthusiast; Mr. Morison is a Positivist and a pessimist. And he leaves us barren of hope and full of fear. He does, indeed, say, *à propos* of the problem of over-population, that "if only the devastating torrent of children could be arrested for a few years it would bring untold relief." But he fails to develop his neo-Malthusianism, though he approves of Mr. Arnold White's suggestion to "imprison for life all habitual criminals, not as a punishment, but in order to prevent them from multiplying their kind."

Before, however, speaking of the view of life which Mr. Morison would substitute for the

Christian view, we must notice the destructive and critical part, which takes up three-fourths of the volume.

In the chapter on the "Decay of Belief" it is assumed that Christianity is now in the condition of rudimentary organs atrophied by disuse:—

"The common trait of rudimentary organs belonging to either category, biological or sociological, is that they survive their use, that they are nourished and live at the expense of the organism in which they exist, and long after they have ceased to make any return for the support they obtain. In the animal world, rudimentary organs may or may not be noxious to the organism in which they inhere; in the social organism they unquestionably are so, especially by their occupying the room and preventing the development of active and efficient organs which would succeed and replace them. That the Christian religion is rapidly approaching, if it has not already reached, this position, is a part of the thesis maintained in these pages" (p. 12).

So much has been said about the decay of belief in the present day that people have almost come to forget that frequent assertion is not proof. We cannot help thinking that there is a good deal of *à priori* assumption in the matter. No doubt, if any sane man believes, as Mr. Morison fancies Christians do, that Bishop Butler has won "a predestined victory over all opponents, past, present, and future," he has little appreciation of the real conditions of the problem. What Bishop Butler did—and Mr. Morison fully admits it—was to give a successful and final answer to "the shallow deism

of his day." If it is unfair to blame him for not meeting difficulties which had not yet been raised, it is childish to suppose that he gave a prophetic, or at least a proleptic answer to them. But if Bishop Butler's "Analogy" is no longer adequate to the requirements of to-day, it is because the opponents of Christianity have unlearned their "shallow deism," and are being led *multa reluctantes* from the mechanical to the organic conception of nature. Evolution has gently taken them by the hand, and helped to make easy for them the transition from Positivist to metaphysical modes of thought.

Though, however, we do not appeal to Bishop Butler's "Analogy," except, indeed, in the matter of *method*, we do appeal to his account of the state of belief in his days as against Mr. Morison's view of the decay of belief in ours. The often-quoted words from the Preface to the "Analogy" would be obviously inappropriate and untrue now:—

"It is come," says Bishop Butler, "I know not how, to be taken for granted by many persons, that Christianity is not so much as a subject of inquiry, but that it is now at length discovered to be fictitious. And, accordingly, they treat it as if, in the present age, this were an agreed point among all people of discernment, and nothing remained but to set it up as a principal subject of mirth and ridicule, as it were by way of reprisals for its having so long interrupted the pleasures of the world."

There is no reason to suppose that this does not

truly represent the state of religion in the age of "shallow deism." But, explain it as we may, things are, as indeed Mr. Morison elsewhere admits, very different now. No periodical is complete without an article in which Christianity is defended or attacked ; and the very earnestness of the attack is a proof that the writers believe that religion is neither obsolete nor obsolescent, as a rudimentary organ should be, but still performs its functions in many lives. Paradox as it would seem to Mr. Morison, there is much to show that Christianity has a wider and firmer grasp on the consciences of men than it has had for a long time. If in the substitution of the helmet for the policeman's hat, a keen observer like Mr. H. Spencer sees a recrudescence of militarism, which is strangely anachronistic in an industrial age. Mr. Morison may find abundant traces of a return to Catholic belief, not in the form of mere reactionary protest against modern science, but as daring to claim the new science on its side. Here it will be noticed we are directly at issue with Mr. Morison. He says :—

"When theology was attacked in front with metaphysical arguments, such as were used by the old deists, it was able to make a very stout and plausible resistance. But now its position, in military phrase, has been turned ; the heights around it and behind are occupied by an artillery which render further defence impossible" (p. 23).

If this means that the position of Paley and his

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school is no longer tenable, we readily agree, and Mr. Morison need not have spent so many pages in killing the dead. But Paley's position is abandoned because it was itself tainted with "shallow deism," the result of that mechanical conception of nature from which evolution is at last delivering us. Bishop Butler rose above it by the force of his Aristotelianism ; Paley unconsciously accepted it, and struggled in vain against the deism which was inherent in it. The world was treated as a huge machine, which some people said had been originally constructed and set going, wound up like a watch by God ; and the great question of the day was whether the Maker had or had not reserved to Himself the power of altering the regulator.

The truer and deeper view of the world as an organic whole has no doubt its own difficulties on the side of what is vaguely known as Pantheism. If it is more scientific, it is *more*, not less, metaphysical ; and it is a real gain to Christianity that it has made the arguments of deist opponents and anti-deist defenders matter of purely historic interest.

Mr. Morison treats the disappearance of deism as merely a further step in the process of what Mr. Fiske calls "deanthropomorphisation." Anthropomorphism, it is argued, is no longer possible ; but religious worship stands or falls with the belief



in an anthropomorphic God ; therefore, religious worship is impossible. *Q.E.D.* The reasoning is excellent, but the middle term involves a question-begging ambiguity. What is anthropomorphism ? Mr. Morison thinks Christianity anthropomorphic ; Christianity calls anthropomorphism a heresy. No Christian preacher could have stated the requirements of the religious nature more clearly and truly than Mr. Morison does when he says :—

“The best apologists admit that a mere metaphysical deity, an absolute First Cause defecated to a pure transparency, is not enough. What they wish to restore is a belief in the God to whom they learned to pray by their mother's knee. And they are abundantly justified from their point of view in such a wish. The only God whom Western Europeans, with a Christian ancestry of a thousand years behind them, can worship, is the God of Abraham, Isaac, and Jacob ; or, rather, of S. Paul, S. Augustine, S. Bernard, and of the innumerable ‘blessed saints,’ canonized or not, who peopled the Ages of Faith. No one wants, no one can care for, an abstract God, an Unknowable, an Absolute, with whom we stand in no human or intelligible relation. What pious hearts wish, to feel and believe is the existence ‘behind the veil’ of the visible world, of an invisible Personality, friendly to man, at once a brother and God” (p. 48).

But when he sums it up as follows—

“That is to say, that an anthropomorphic God is the only God whom men can worship, and also the God whom modern thought finds it increasingly difficult to believe in” (p. 49).

we feel that we can put our finger upon the am-

biguity. Religion demands as a condition of its existence a personal and moral being. If "personal and moral," then anthropomorphic, argues Mr. Morison, as Mr. Spencer has done before him. Christianity says personal and moral, but not anthropomorphic—a God Who is neither "defecated to a pure transparency" on the one hand, nor dressed up in human clothes on the other. The process of "deanthropomorphising," in the Christian sense of that word, is admirably traced in Dean Church's "Discipline of the Christian Character." If Judaism is more anthropomorphic than Christianity, and the earlier part of the Old Testament more anthropomorphic than the Psalms and the Prophets, it by no means follows that Christianity is more anthropomorphic than pantheism or positivism because it proclaims its belief in a personal and moral God. No doubt the old anthropomorphic heresy has appeared in many forms since the days of the anthropomorphites. It appeared in the view of God and nature adopted by the later schoolmen, which aroused the protest of Bacon and Descartes ; it reappeared again in the form of deism under the misdirection of Baconian and Cartesian physics. But it is hard to credit Christianity with that which it has adjudged a heresy, and against which it persistently protests.

Assuming, as Mr. Morison does, that Christianity

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exists only as a survival, he has to admit that, "if moribund, it is by no means dead, in this country at least," and the question arises—Why do men hesitate? The answer is that—

"The mass of Englishmen, in spite of the wide prevalence of agnostic views, are not yet satisfied in their hearts that an improved substitute for Christianity can be found." "A belief in the unknowable kindles no enthusiasm. Science wins a verdict in its favour before any competent intellectual tribunal; but numbers of men, and the vast majority of women, ignore the finding of the jury of experts. . . . They will believe, in spite of science and the laws of their consciousness, in a good God, who loves them and cares for them and their little wants and trials, and will, if they only please him, take them at last to his bosom, and 'wipe the tears for ever from their eyes'" (pp. 51, 52).

More than this, there is an inveterate belief that Christianity is, after all, the best support of morality extant, and that the result of the abandonment of religion would be anarchy in morals and a reign of universal licence.

Mr. Morison, therefore, takes upon himself—(1) to show, in the manner of Lucretius, that the alleged consolations of religion are a delusion; that, in fact, it has secured to man a balance of misery; (2) to prove that Christianity is immoral and the cause of immorality; and lastly, to assure us that there is something else quite ready to take its place, so as to avoid a moral interregnum.

With regard to the first of these theses we need say little. Mr. Morison seems surprised to find

admissions, as he thinks them, on the part of such different writers as Thomas à Kempis, Cardinal Wiseman, Jeremy Taylor, and John Bunyan, that the life of faith, on earth at all events, is not one of unruffled peace or a source of unclouded happiness, the fact being that these good men, representing though they do different phases of Christianity, all had this in common—(a) they made what Mr. Morison calls the “enormous assumption of a future life” an integral part of their theory, and (β) they never dreamt of applying to religion a mildly utilitarian or hedonistic test. When Jeremy Taylor says, “Do not seek for deliciousness and sensible sweetness in the actions of religion, but only regard the duty and the conscience of it,” he is deliberately rejecting the test by which Mr. Morison would judge of the value of religion. Christianity is not Stoical, but it is after all infinitely more Stoical than Epicurean. We are not anxious to defend Calvinism, which Mr. Morison speaks of as the “revolting devil-worship which once passed under the name of Christianity,” and which, he gratuitously asserts, “really was Christianity, Gospel truth, supported by texts, at every point taken from Scripture.” Like Mr. Bradlaugh, he makes much capital out of this confusion of Calvinism with Christianity, both here and in his attack on Christian morals. It may, therefore, be well at once to say that if Calvinism is Christianity, *cadit*

quaestio, it is madness to attempt any longer to defend the morals of Christianity. Calvinism is not accidentally but essentially immoral, since it makes the distinction between right and wrong a matter of positive enactment, and thereby makes it possible to assert that what is immoral for man is moral for God, because He is above morality. Yet in the attack on Christian morals the confusion between Christianity and Calvinism is constantly taken advantage of, especially in stating the doctrine of the Atonement.

The main charge, however, on which Mr. Morison insists, is that the Christian doctrine of forgiveness, and of possible salvation even for the worst sinners, is in the final result "antinomian and positively immoral." It is mere book-making to give long quotations from S. Alphonso de Liguori, Dr. Pusey, and Mr. Spurgeon to show that the doctrine of forgiveness is an integral part of Christian teaching. No Christian ever dreams of denying this, and Mr. Morison does not even suggest that it was an invention of later days, and as he himself cites the pardon of the penitent thief in proof that "a life of wickedness on earth is immaterial and no impediment to the promptest ascent into heaven," it was hardly necessary to show at such length that Christians, of such different types as those mentioned, all agree in the "immoral" doctrine. The often-told story, or legend of the

Emperor Constantine seeking in vain, outside Christianity, for the hope of pardon for the murder of his son, clearly marks the fact that the doctrine of forgiveness was, from very early days, singled out as the distinguishing characteristic of the Gospel of Christ. And Christianity may fairly claim to stand or fall with its teaching as to the possibility of forgiveness. That it is a doctrine easily abused, easily made a pretext for an immoral life, Christian teachers have never been slow to allow. We must further in honesty admit that many who, from an outside point of view, might be considered representative Christians have taught forgiveness in a way that is profoundly and intensely immoral. We have spoken of the essential immorality of Calvinism. In the matter of forgiveness Luther is no better. Those words written from the Wartburg cannot be explained in any way consistently with practical morality :—

“*Esto peccator et pecca fortitur sed fortius fide et gaude in Christo. . . . Sufficit quod agnoscimus, per divitias glorie Dei, agnum qui tollit peccata mundi ; ab hoc non avellet nos peccatum, etiam si millies, millies uno die fornicemur aut occidamus.*”

Luther's antinomianism no less than Calvin's denial of free will, which in the last resort made God the author of evil, are hard enough to reconcile with ordinary morality. And so long as such teachers are thought of as representative Christians,

opponents like Mr. Morison will be able to make out a case against the morality of Christ. But Mr. Morison objects to the doctrine of forgiveness, not as taught by Luther or modern Puritans, but as taught by our Lord Himself:—

“The penitent thief’s life (he says) we may assume, was a pernicious one as far as this world was concerned. What good could his repentance do to any denizen of this earth? If it be said that it might lead others to repent after a life of crime, the answer is, that in proportion as they resembled him they also would be qualifying for heaven, and not for well-doing in this world. . . . It would not be easy to conceive a doctrine more injurious to morality than this Christian scheme, on which the morality of the world, as on the surest foundation, is supposed to rest” (pp. 111, 112).

We are not quite sure that Mr. Morison has fully faced the consequences of this criticism. It is fatal not only to the religious teaching about salvation, but to forgiveness in any form. It is no less immoral for man to forgive man, since every act of forgiveness removes a deterrent from evil-doing, and so makes wrong-doing easier. If society pardons a social sinner, it so far lowers the moral standard. Punishment swift, unerring, inevitable, is the only remedy. To accept anything short of “the uttermost farthing” is, like the pardon of the penitent thief, in its degree a connivance at immorality.

We have here reached one of the points in which Mr. Morison’s theory stands in most clear

opposition to ordinary, which after all in this matter is Christian, morality. And we are content to leave the judgment with the conscience of ordinary men. We are only anxious to point out that as Christianity makes God's forgiveness of man the measure of man's forgiveness of his brother, so the charge of immorality against either is fatal against both.

The chapter on "Morality in the Ages of Faith" seems to us elaborately beside the point. It makes the "Service of Man" a volume utterly unfit for general reading, and it proves nothing but this, that Christianity has not triumphed over vice or immorality as some wish it had, and as Mr. Morison thinks it ought to have done. The attack on the morals of convents is in two respects misleading and unfair. Why should the decline of monasticism be chosen as the age of faith? And why does Mr. Morison calmly ignore all that the monastic system in its best days had done for the service of man? Both charity and education may be better and more wisely provided for by modern methods, but it is worth remembering that, before Poor-laws and Education Acts, all that was done for the poor and ignorant was done by the monastic establishments.

There is also something exceedingly unsatisfactory—may we not say illogical?—in condemning an age by cataloguing cases of vice, however well authenticated. For everything depends upon the

proportion which such cases bear to the whole. Lord Bacon, speaking of the natural tendency to take instances which prove a theory and ignore those which contradict it, cites the shrewd question of one who, when he was shown the votive tablets of those who had paid their vows to the gods and escaped shipwreck, asked, "And where is the list of those who paid their vows and were drowned?" But even if Mr. Morison could prove that immorality was the rule and not the exception in the age of Louis XIV., why should this, rather than the age of the Apostles, be singled out as the age of faith? And why should it be assumed that this immorality was due to Christianity, rather than to human nature, which even Christianity had not been able to transform? His assumption that Christianity is immoral apparently justifies him in putting down to Christianity all the wickedness he can find in a nominally Christian country. But this is neither fair nor logical.

There is just the same kind of special pleading when we come to the other side of the question—the noble lives which Christianity has produced. We are told :—

"It is in the action of Christian doctrine on the human spirit that we see its power in the highest and most characteristic form. Neutral or injurious in politics, favourably stimulating in the region of speculative thought, its influence on the spiritual side of characters, naturally susceptible to

its action, has been transcendent, overpowering, and unparalleled " (p. 192).

Mr. Morison singles out S. Louis, Sir Thomas More, and Pascal, in former days, as types of Christian saintliness, and in quite recent times, Sister Agnes Jones, Mother Margaret Hallahan, and Sister Dora, and to these last three and their work he gives no grudging testimony :—

"I will vie with any one," he says, "in celebrating the unselfish devotion, the self-sacrifice, the warm love and sympathy which they all showed in assuaging human suffering, bodily or mental. I cannot read their lives without tears, and the admiration I feel for them may be truly called passionate" (p. 232).

Here we seem to have found three sufficiently remarkable lives in which Christianity and morality were connected as cause and effect. Nor does Mr. Morison dream of denying that those noble women lived their lives in the faith of Christianity. But just as in the last chapter Christianity is credited with all the vices it failed to overcome, so here it is asserted, without a shadow of proof, that these women would have been what they were, if they had not been Christians. "A hard, sarcastic Scotchman," we are told, "who was a professed unbeliever, remarked of Dora, whose patient he had been, 'She's a noble woman, but she'd have been that without her Christianity.'" On which Mr. Morison remarks: "That is just the simple fact of the matter." We are inclined to suggest that,

so far from it being matter of fact at all, it is a dogmatic statement as to what might have been under conditions which cannot now possibly be realised. The *matter of fact* is that these good women lived and died in the service of man inspired by that very faith which is supposed to make people immoral; the *theory* is that without that faith they would have done the same. Mr. Morison ought not, however, to confuse *theory* with *fact*, especially a theory which, as incapable of proof or disproof, is excluded from the domain of science. And when he proceeds to ask, "If the saintliness of these holy women depended upon their creed, why do not the thousands and millions who hold the same creed exhibit a like saintliness?" he seems to us to be guilty of another logical blunder.

This closes the case against Christianity. People, it is said, are giving up their faith. The consolations of Christianity have been much exaggerated. Its teaching about forgiveness is profoundly immoral, and its inherent immorality is shown by the vices of Christian ages. Even the saints who lived for the good of men would have done as much good if they hadn't been saints, and much more good if they had substituted science for saintliness.

The last two chapters deal with the momentous question, "What is the successor to Christianity as a religion? Or, will it have no successor?" The

answer, as we have said, is a fragment, but the main lines of Mr. Morison's theory are plain enough. First of all, he repudiates any idea of making a new religion. Religions are not made but grow. But we may discover, he says, the direction which evolution may be expected to take. The world has outgrown fetichism and polytheism. Even religious people are satisfied with one God. The next step is obviously to do without a supernatural object of worship altogether. Mr. Morison speaks as if this millennial state were already reached. "The worship of deities has passed into 'the service of man.' Instead of theolatriy we have anthropolatriy. The divine service has become human service." Even religion has become humanised and moralised :—

"Nearly every form of relief now, in greater or lesser degree, passes through the hands of the clergy. The improvement of the condition of the poor seems very often to be the chief occupation of many a hard-worked parish priest. To rescue children from vice and temptation, to inform their minds with virtuous principles, to clothe and feed their bodies, to ameliorate the dwellings of their parents, and admit a ray of light and brightness into the squalor of their daily lives—these, and similar objects, occupy the time and minds of Christian ministers to a degree which was never even remotely approached in the past" (p. 259).

If we except the last few words, we are not anxious to dispute these facts. But there are two ways of interpreting them. The one is Mr. Morison's, that the service of God is dying out, and the

service of man is taking its place ; and the other the diametrically opposite one, that the revival of Christianity is the cause of, and is proved by, this unselfish work for the good of man.

We do not, of course, hope to convince Mr. Morison ; but we are anxious to put the two views in clear antithesis before our readers. Mr. Morison is fond of offering us a choice of alternatives which not only do not exclude one another, but of which one to a Christian necessarily carries the other with it. It is not fair to ask a man—Will you be religious *or* moral? Will you live to the service of God *or* to the service of man? If the terms were really exclusive, a Christian could not hesitate to choose the latter alternative in each case. For an immoral religion and a worship which isolates man from his social environment, has as little claim upon the conscience as it has right to call itself by the name of Christianity. But Mr. Morison has no right to assume these antitheses. Common honesty should have led him rather farther back in his historical researches. There is at least a chance, at all events a good many people think so, that the Gospel of Christ was less like what He meant it to be in what Mr. Morison calls “the ages of faith” than in the days of primitive Christianity. Our contention is that primitive Christianity knew nothing of the opposition between faith and

morals, or between the service of God and the service of man, and therefore that when that opposition is found—and it is found, no doubt, at various points in the history of Christianity—it proves only that the Christian Church has fallen short of the Christian idea.

It would be waste of time to prove the close association of faith and morals in the early days of Christianity. We doubt whether any one would deny it. A single act of immorality—such as Mr. Morison finds common in the Church in the age of Louis XIV.—was sufficient in primitive days to exclude a Christian from fellowship in the Divine Society, and that at a time when the world outside the Church thought little of such sins. And as for the supposed antithesis between the service of God and the service of man, we would refer those who believe in its existence to the writings of S. John. S. John was a man whom Mr. Morison would probably class amongst religious mystics, and yet, of all the passages—and they are many—in which the service of man is spoken of as an integral part of the Christian's service of God, there are probably none stronger than those to be found in S. John's Epistles :—"We know that we have passed from death unto life because we love the brethren." "If a man say, I love God, and hateth his brother, he is a liar." "This commandment have we from God, that he who loves God love his brother also."

Attacks like those of Mr. Morison and others would, indeed, be wanting even in plausibility if Christians had not so often made Christianity, in contradiction of its essential principles, a selfish and individualistic system. Such a perversion of Christ's Gospel is peculiar to no age, but it has been infinitely more common since the Reformation than before it. With the loss or obscuration of the idea of the Church, the social side of Christianity and the idea of brotherhood fell into the background, and individualism in religion, in politics, in ethics, with its correlated atomism in science and philosophy, became almost universal. The humanitarianism of to-day, even when divorced from its vital connection with Christianity, is one of the most encouraging signs of the times. We are gaining not only a truer view of nature, but a truer view of man. And books like "The Service of Man" will not be without use if they recall Churchmen to the true proportion of the faith, and remind them that the Christianity of Christ is not a mere "soul-saving system" for the individual, but a true regeneration of man as man.

At the beginning of this review we said that the "Service of Man" indicated a remarkable change of front, as compared with similar books in the past. We can only shortly justify this statement in one or two crucial points.

1. We take first Mr. Morison's view of the Chris-

tian moral ideal. It has long been the fashion to compliment Christian morality, and under cover of this to attack the Christian faith. It used to be said:—Oh! we have no objection to Christian morality. The character sketched in the sermon on the Mount is the highest that the world knows. Only why complicate it with doctrines and dogmas, theories about grace and sacraments, and regeneration of man by the Incarnation of the Son of God? And when Christian teachers ventured to suggest that the Christian verities were the only known foundation for the Christian virtues, they were charged with almost inconceivable narrowness and intolerance and self-conceit. Mr. Morison, of course, gives up the dogmatic and supernatural basis of Christianity, but the remarkable thing is that he finds himself obliged to give up the Christian morality as well:—

“This pursuit of a spirituality utterly beyond attainment by ordinary mortals, beautiful as it is when attained, operates injuriously on the morality of average men and women. The standard proposed is so exalted, that instead of attracting the ordinary person to aim at reaching it, it discourages and repels him” (p. 227).

The “ordinary person” has, we think, been hardly dealt with. First he was told if he would give up his supernatural beliefs he would find the moral ideal of Christianity all he wanted, and now he is told that it is “utterly unattainable by ordi-

nary mortals" like him. Christianity at least gave him hope. It set before him, indeed, a supernatural life; but it offered him, ordinary man as he was, a supernatural power in which to live it. Mr. Morison first deprives him of the one, and then tells him to abandon the other.

2. Mr. Morison is, of course, a determinist. He looks upon free will as "a sort of secular correlative of Divine grace," *i.e.* something which does not fit well into the category of physical causation. We need not here dwell on the fact that Mr. Morison does not take the trouble to find out what free will is. He takes it to be a sort of wayward power of unmotivated volition, which any moralist would tell him is of no more moral worth than the physical process of digestion. It is characteristic of the analytic tendency of Mr. Morison's mind that he can see no alternative but determinism and indeterminism, the latter of which he assumes without a scrap of evidence, to be bound up with theology. The mistake has often been made before, especially by people who take it for granted that theologians are "mostly fools." But what is interesting in this matter is, not the misconception which Mr. Morison shares with a good many other determinists, but the remarkable way in which he differs from them. Mr. John S. Mill, for instance, a typical champion of determinism, spends many pages in showing that determinism, or the

doctrine of philosophical necessity, is not identical with fatalism, though both defenders and impugnors constantly make the mistake of thinking so. It is, we are told, quite consistent with our feeling of freedom and the fact of moral responsibility. Mr. Lloyd Morgan, a humble follower of the Herbert Spencer school, in his volume entitled "Springs of Conduct," is most earnest in assuring us that determinism does not destroy morality, does not paralyse conduct, and so on ; while even so judicious and judicial a writer as Professor Sidgwick thinks the metaphysical question as to the freedom of the will may be decided either way without any serious practical consequences. There were certain narrow-minded people—chiefly theologians and moralists—who kept on saying that determinism and moral responsibility were incompatible terms, that if determinism was true we had no more right to praise or blame a man than to praise or blame a chest of drawers. Determinists of the Mill school held up their hands in pious horror at such a wicked perversion of a harmless theory. Let us hear Mr. Morison. The passage is so valuable that we quote the actual words, though we have not room for the whole :—

" Nothing is more certain than that no one makes his own character. That is done for him by his parents and ancestors. The hero was born with his noble and fearless heart ; the saint came into the world with his spontaneous aptitude

for good works and lofty feeling ; and the moral monster, the cowardly, selfish, unscrupulous criminal, was born with his evil passions inherited from progenitors, near or remote. No merit or demerit attaches to the saint or the sinner in the metaphysical and mystic sense of the word. Their good or evil qualities were none of their making. A man inherits his brain as much as he inherits his estate. The strong nature, the vivid imagination, the tender conscience, the firm will, all come by inheritance, as much as money in the funds, or a noble demesne of broad acres" (p. 291).

To the objection that this does away with moral responsibility, Mr. Morison answers :—

"The sooner the idea of moral responsibility is got rid of, the better it will be for society and moral education. The sooner it is perceived that bad men will be bad, do what we will, though, of course, they may be made less bad, the sooner shall we come to the conclusion that the welfare of society demands the suppression or elimination of bad men, and the careful cultivation of the good only. This is what we do in every other department. We do not cultivate curs and screws and low breeds of cattle. On the contrary, we keep them down as much as we can" (p. 293).

3. It follows from this physical view of man that the only possible remedy for the evils of the day is scientific homoculture. The analogy between this and cattle-breeding had been suggested before in the criticism of the "doctrine of grace." There are, however, considerable difficulties here. The "suppression" of children who show signs of an intellectual or moral taint would, in the present imperfect state of education, call forth a good deal of opposition—at least, from the mothers.

Nor do things seem to be moving in the direction Mr. Morison suggests. We were told before that in view of any change we must ask, "What is the direction which evolution may be expected to take?" Now, there was a time when infanticide was common, and it was possible for Plato to put out, at least as a theory, an elaborate scheme of "homoculture," in which everything was to be subordinated—home life, sexual morality, etc.—to the production of the most perfect men physically and morally. But the direction which evolution has taken is towards setting a constantly higher value on human life. The modern world looks upon its hospitals with pride, and forgets that, as Mr. Morison points out, they mean the preservation of the physically weaker, who will perpetuate their weakness in a new generation. On the whole, things do not seem to set much in the direction of Mr. Morison's scheme. He wisely says little about the method of "suppression" to be adopted, and nothing about the criteria to be applied as to qualifications for suppression. There are difficulties connected with both.

4. There is one more point on which we cannot but dwell for a moment. It has often been urged that, if you accept determinism and take an external view of right, measuring it by utility or the greatest happiness of the greatest number, you are led to think of actions, in abstraction from motives, and

so, in Kantian language, to put *legality* in place of *morality*. Conduct being thought of before character, the result will be a serious deterioration of character, and then, as a natural consequence, of conduct too. Here, again, the ordinary utilitarian moralist is at pains to explain that this is not so, that utilitarianism can vie even with Christian morality in the value it sets upon purity, no less than in its desire for the good of others. Let us see the conclusion to which Mr. Morison is driven. For some time we shrunk, for obvious reasons, from quoting the passage, and yet it points so truly and so clearly the contrast between what Mr. Morison means by morality and what Christianity calls by that name, that it would be wrong to leave it out. Mr. Morison is speaking of "the criminality of producing children whom one has no reasonable probability of being able to keep," and he says:—

"The right of A. to marry, and to leave to B. the task of keeping his children, has ceased to be a matter of grim humour. A. and his prolific spouse must be made to realise that few evil-doers are more injurious to the world than they are. They may be models of virtue according to conventional ethics, but those ethics are out of date. The barren prostitute, on whom they probably look down with scorn, does not at any rate aid in swamping the labour market; nor even in recruiting her own class as they do. We may hope that, in the worst of times, the honest proletariat will not selfishly refuse to share his half loaf with his famishing fellow. But, for the sake of the race, we may also trust that

he will peremptorily refuse to share his crust with his reckless brother's eight or ten children."

Mr. Morison has the courage of his opinions, and does not shrink from developing them to their logical result. "For the sake of the race" he is willing not only to visit the sins of the fathers upon the children in a way which shocks the modern sense of justice, but also in his estimate of the comparative wickedness of acts, to set at defiance our deepest and most cherished moral ideas. It may be from defective education, but, certainly, as we stand face to face with this new morality, we cannot help feeling that, with all its faults, "the old is better."

V.

A STUDY OF RELIGION.*

"A STUDY of Religion" is a continuation of the argument of the "Types of Ethical Theory," published three years ago. Dr. Martineau had there dealt with the facts of the moral consciousness, vindicating the authoritative claim of conscience against the various attempts to resolve it into hedonism, or make it the product of a more or less disguised naturalism. In those earlier volumes he was content to establish the moral facts as facts, and though he never cared to avoid "showing his hand," and never disguised his conviction that the ultimate explanation of conscience is to be found in religion, he allowed the question of the validity of its claim to stand over for a separate hearing, till it could be tried "in the court of metaphysics." We have now the trial and the verdict, and if those who know Dr. Martineau find in the verdict only what they expected, it by no means follows that they will not learn much from the arguments by which it is justified.

* "A Study of Religion." Two Vols. By James Martineau, D.D., LL.D. Clarendon Press, 1888.

The Preface opens with an anecdote which so exactly expresses Dr. Martineau's own attitude and the stages in his intellectual development that we quote it in full :—

"I cannot better introduce my readers to the main purport of these volumes, than by relating a conversational criticism, by an eminent English Positivist, on a no less eminent American representative of the Spencerian system of thought. Friendly relations had grown up between them, when Professor Fiske, of Harvard, was in this country ;—relations, none the less cordial from the tacit assumption, supposed to be warranted by his 'Cosmic Philosophy,' of their common rejection of religious beliefs. On the appearance, in 1884, of his interesting Address to the Concord School of Philosophy, entitled 'The Destiny of Man in the light of his Origin,' a report of its argument, contained in a private letter, was read to his English friend ; who listened attentively enough till it came out that the Professor found, in the psychical evolution of man, an intimation of individual immortality ; but *then* broke in with the exclamation,— 'What? John Fiske say that? Well, it only proves, what I have always maintained, that you cannot make the slightest concession to metaphysics, without ending in a theology!'—a position in which the speaker has no doubt been confirmed by the author's second Concord Address, in 1885, on 'The Idea of God.'"

This Dr. Martineau treats as a naïve confession that if once you allow yourself to think about the origin and end of things you will have to believe in God and immortality. And this view he gladly welcomes, for it sketches the course along which he has himself been led. His previous volumes have told us how he broke away from the Positivism

of J. S. Mill and found himself compelled "to think about the origin and end of things;" and the present work completes the autobiography. Like many another thinker in the present day, Dr. Martineau started where, according to Comte, reason ought to end, and exactly reversing the law of the Three Stages passed from Positivism to metaphysics and from metaphysics to theology. Perhaps the process would be more exactly described as the transition from Positivism to theology *via* metaphysics. For Dr. Martineau's chief and perhaps only interest in metaphysics is due to the fact that it is the entrance chamber to theology, and, by leading on to theology, both vindicates the claim of conscience to speak with authority, and at the same time makes religion possible.

The result is that, though a considerable part of these two volumes is devoted to metaphysical questions, the interest does not centre in these, but in that which they lead up to—the vindication and justification of the religious instincts. Thus the work which Dr. Martineau here does for theism is precisely analogous to what in his last two volumes he did for ethics. It would be easy in both cases to point out difficulties connected with his statement what he not only does not solve, but hardly feels; but the strength of his work lies in that which is, perhaps, a survival from his Positivist training, his unswerving fidelity to experience, and

his steady refusal to sacrifice fact to theory either in morals or religion.

The war-note is sounded in the Introduction. "By religion," says Dr. Martineau, "I understand the belief and worship of Supreme Mind and Will, directing the universe and holding moral relations with human life." The modern attempt to expand the meaning of the term so as to identify it, as the writer of "Natural Religion" does, with "habitual and permanent admiration," finds as little quarter as the attempt to make God a synonym for nature :—

"This watering down of the meaning of the word *Religion*, so as to dilute it to the quality of the thinnest enthusiasm, would be less confusing, if it openly washed away with it and discharged all the theological terms which it empties of significance" (vol. i. p. 5).

To the vigorous common sense of Dr. Martineau a religion without a Personal Object of worship is as meaningless as a moral system without freedom, or ethics without the recognition of the authority of conscience. And the confusion of well-known terms, however well meant, is, as he reminds us, of little use in bringing opposing views together :—

"The disputes between science and faith can no more be closed by inventing 'religions of culture,' than the boundary quarrels of nations by setting up neutral provinces in the air" (vol. i. p. 11).

"A God that is merely nature, a theism without God, a religion forfeited only by the *nil admirari* can never

reconcile the secular and the devout, the pagan and the Christian mind. You mainly propose an *εἰρηνικόν* by corruption of a word" (vol. i. p. 15).

We know, then, at once where we are. The religion which Dr. Martineau undertakes to defend is religion in its old-fashioned sense, implying a real relation between man and the object of his worship, a Personal God. And we are now in a position to ask, How are ethics and religion related? and why treat ethics before religion? And the section devoted to this subject is one of the most useful in the book. It might seem as if one who sees in conscience the representative of God was guilty of making ethics a mere *dépendance* of religion. But Dr. Martineau is far too sound a moralist to do this. Ethics and religion may, and do, exist apart. And it is at least as true to say that religion rests on ethics as to say that ethics depend upon religion. There is a sense in which both statements are true. Dr. Newman speaks of conscience as "the creative principle of religion," because "though walking on the earth it holds of heaven," and is only fully known when it is recognised as "the messenger from Him, Who both in nature and in grace speaks to us behind a veil, and teaches and rules us by His representatives." Similarly Dr. Martineau tells us that the reason why ethics must be treated before religion is—

"Not that they are an absolute condition of its beginning;

not that they always involve it as their end ; but that they implicitly contain the resources whence Religion, in the higher form which alone we can practically care to test, derives its availing characteristics, its difficulties, and its glories " (vol. i. p. 19).

Conscience, which in its own nature is divine, "may indeed act as human before it is discovered to be divine," and "the life of duty" may never be converted into "the life of love." But these are cases of arrested development. We may perhaps put this in the form—though Dr. Martineau does not so put it—that while conscience logically presupposes theism, it may chronologically be prior to, and exist apart from, the knowledge of God.

But when the authority of conscience has been challenged, as it has been in the present day, one of two results must happen. We cannot return to the condition of unquestioning obedience. Conscience must justify or abandon its claim :—

"The life of conscience may be one either of childlike trust, or of divine insight ; but to quit the first, and fail of the second, is to become an exile and a wanderer. Ask for no credentials, and you will have clear guidance : scrutinise its imperial claims, and persuade yourself that they are *ultra vires*, and you will listen to them only where they are within the limits of your wish. A sovereign title must either be perfect, or good for nothing ; and against a detected pretender there can be no high treason. If, on close inspection, you find in your moral consciousness nothing to excuse the portentous tones in which it speaks ; if you attribute their impressiveness to the survival of a misplaced trust or an early superstition, you will resent it as a cheat, and set to

work to rationalise and reduce your code. There is but one result possible. If, among the acts of the will, there is for you no better and worse *per se*, if right wins no allegiance from you on *its own account*, and you will insist on discovering some other quality that *makes* it right, you have bespoken your place in the school of Epicurus; for sentient good and moral good make up together all that is eligible in human life; and when once you treat the second as dependent, it becomes of necessity a satellite of the first. Hence it is that ethics must either perfect themselves in religion, or disintegrate themselves into hedonism; and that there is an inevitable gravitation in all anti-theological thinkers to 'the greatest happiness' doctrine" (vol. i. pp. 25, 26).

As, then, the object of the "Types of Ethical Theory" was *negatively* to sustain the authority of conscience by criticising and discrediting the various attempts to explain it away, so the object of the present treatise is to sustain that authority *positively* by showing that "the august authority of righteousness" can only justify its claim to unhesitating submission by revealing a supernatural source.

We have quoted fully from these introductory sections not only because they seem to state clearly and well the true relation between ethics and religion, but also because, later on, we propose to point out the parallel relations which subsist between Unitarian and Christian theism.

The ground for the main discussion is cleared by a criticism of the various forms of phenomenism and subjectivism, and then with Book II. we pass

to the subject of theism. Religion implying a conscious relation between man and a Being Who is higher than man, this Higher Being is conceived of either *dynamically* as cause, or *morally* as perfection :—

“These two fields,” says Dr. Martineau, “really exhaust all that we can seek or really desire to know of things divine; for although to these two aspects, of God as *Cause*, and God as *Holy*, we might add a third, of God as *Judge* in order to determine the question of a life reserved for us beyond death, yet this is evidently an integral portion of the moral problem embraced in the second head” (vol. i. p. 137).

There is nothing strikingly new in Dr. Martineau’s review of the attempts to identify cause with the *Ding-an-sich*, or with mere phenomenal sequence, or the more recent attempt to merge the conception of cause in that of force. All these views are rejected because they assume that the relation is subjective only, and seek and find it in the receptivity rather than in the activity of the “Ego.” Dr. Martineau holds the view that, will being the only cause of which we have immediate knowledge, we naturally project this into the non-ego, conceiving of it automorphically, and attributing to it volitions like our own. As a scientific conception of nature takes the place of mere unreasoned observation, we come not to expel will from the scene, but to substitute plan for impulse, and trace the unerring marks of purpose—selection, combination, and gradation—in the unity of the whole.

"The intuitive assumption that the non-Ego is the counter-cause to the Ego—will *vis-à-vis* to will,—” is the same throughout, but we learn to conceive of that will with which we are face to face as not arbitrary and wayward, but orderly and rational and purposeful.

All this, excellently as it is stated, is not in itself new. What Dr. Martineau claims as new is the identification of this view of cause with his conception of will as *the choice between two alternative directions of activity*. This is his contribution to the problem. A cause is not really a cause unless, like will, it determines the indeterminate and exercises choice. And in support of this view he can at least appeal to the consciousness of ordinary men. A cause which is a necessary link in a chain is, after all, only a cause by courtesy. The cause of a given stroke in a game at billiards is not the cue, but the player who had the power to decide whether he should use the cue or not. Till we reach this power of *initiative*, that is, of determining what is not yet determinate, we have, Dr. Martineau argues no conception of causality, and when we quit this power and pass into the sphere of necessity we lose sight of causality again. The very “invariable antecedence,” therefore, which is claimed as an essential mark of a cause is in fact a disqualification for that name; and testifies that we are dealing with the contacts of “a mechanised realm”

where all successions are determined, and neither beginning nor alternative can be.

It follows from this, as Dr. Martineau sees, that the whole terminology of "second causes" must be abandoned. In the region of nature God is the sole cause, the One Supreme Will, and all that we commonly call causes are but the vehicles of His power. The only "second causes" are created wills, which reflect something of the self-determining power of God Himself. Later on, in Book III., it is shown how this accords with the religious view of the omnipresence of God in nature as against the deistic view, and yet, as against pantheism, vindicates a sphere for man's free responsible life.

Against this view that there is no cause except will, and that nature is the expression of an Eternal Living Will, two counter-theories enter their protest—(1) the hypothesis of implicit or unconscious will, and (2) the denial of purpose and design in nature as judged by physical science.

With regard to the first, short work is made of Schopenhauer and Von Hartmann. And perhaps the criticism is remarkable rather for its vigorous good sense than for metaphysical subtlety. More than once it reminded us of J. S. Mill's trenchant criticism of Sir W. Hamilton's "unconscious mental modifications." That an end should be present to the mind and yet latent from consciousness seems to Dr. Martineau a contradiction in terms, and drives him to the conclusion that—

‘Both these writers (Schopenhauer and Von Hartmann) are determined to *eject conscious intention* from nature, and the question with them is where they can find an open joint at which to fling it out” (vol. i. p. 270).

But it is at least as unphilosophical as it is unparliamentary to impute motives. And in Dr. Martineau’s case there is an obvious *tu quoque*, since he admits that, as a theist, he approaches nature with a preconception.

The question of design in nature on its scientific side leads to a long discussion of a well-worn subject, which we do not propose to examine at length. It is clear that for those who hold with Dr. Martineau that will is the only cause in nature or outside it, and that unconscious will is a mere contradiction, the question is prejudged. No one can be a theist and hold that there are regions of nature outside the hand and will and purpose of God. Theism therefore, as Dr. Martineau admits, ‘goes to nature with a preconception.’ It assumes purpose everywhere, and takes it for granted that the order of nature will be compatible with justice and beneficence. Starting with this belief we may indeed find difficulties in interpreting the phenomena, and reconciling the apparently needless suffering with the beneficence of God; and the apparently undeserved pain with the justice of God; and the apparent failures and waste in nature with the wisdom and power of God; but the main

question is not a question at all. A theist's attitude towards such difficulties has in it something of defiance, analogous to that which we assume when evidence is adduced to show the immorality of one we *know* to be upright and good. He, therefore, finds it hard to be fair to men of science who refuse to allow him the use of this preconception. Yet there are many scientific inquirers who, though they believe that nature is the fulfilling of the purpose of a loving God, yet deliberately hold that belief in abeyance in dealing with the question, "Can we argue from nature to a Personal Author, Who is both perfectly loving and perfectly powerful?" Dr. Martineau as deliberately refuses to approach the question without "the help of a well-verified key," such as the knowledge of God in conscience supplies.

It is thus in their presuppositions that those who assert and those who deny design in nature really differ. And it is on the ground of presuppositions that the battle must be fought out. Probably no scientific man would refuse to allow that the observed facts of nature *might* be explained as the work of a personal God, though he would deny that from nature alone such an inference can be made. And if once we grant him the right to abstract the physical from the moral, he is justified in denying the validity of the physico-theological argument. Dr. Martineau

conceives that the object of teleological inquiry is "to ascertain whether the world answers, in its constitution, to our intuitive interpretation of it as the manifestation of intellectual purpose"—in other words, to ask how far the observation of nature confirms that belief which on other grounds we hold. But this is not the question as put by the opponents of design in nature, nor is it, we submit, the exact shape of the Paleyan argument. Kant's criticism on the one side, and the Darwinian science of nature on the other, have shown us—what indeed throughout Dr. Martineau admits—that we really bring to nature what we afterwards find reflected in it; but those who come to nature empty-handed are likely to go away as empty as they came, so far as faith in a personal God is concerned.

Dr. Martineau at times seems to forget how much he owes to his presuppositions, and to argue, with Paley, as if the belief in a personal God rose, as necessarily as it does naturally, out of the mere investigation of nature. Dr. Newman in more than one passage holds the opposite view.

"It is a great question," he says, "whether atheism is not as philosophically consistent with the phenomena of the *physical* world, *taken by themselves*, as the doctrine of a creative and sovereign Power." (Cf. a parallel passage quoted sup., p. 74, from the "Apologia").

There are, as a matter of fact, several steps or

stages in the argument from nature to God, and as long as these are confused, the disputants must be at cross purposes. There is first the scientific question. Do the facts of experience, so far as known, practically preclude the possibility of nature being the work of chance, being, in fact, anything but a rational unity? This leads us naturally to the more distinctly metaphysical question—Is a rational unity, if it exists, intelligible except as the result of a conscious Mind and Will analogous to what we know in the experience of our own acts? And then—If the world is the work of a Supreme Mind and Will, what does it tell us as to the moral character of that Supreme Personality? Or, to put the question differently—Does the world of nature correspond to, and thereby justify, the *a priori* conception of God which conscience demands and religion declares?

Of these the first is no longer an open question. And we regret to find ourselves entirely at issue with Dr. Martineau in his estimate of the bearing of Darwinism upon it. We venture to prophesy with some confidence that when the negative critics of the future busy themselves with "A Study of Religion," the pages which deal with Darwinism will be first bracketed out, and then, on internal evidence, attributed to some one whose mental and moral calibre is infinitely inferior to Dr. Martineau's. It is quite unworthy of Dr. Martineau to speak as

if Darwinism initiated "the reign of accident," or taught that useful characteristics are derived from "a mere random dash of spontaneity." If Dr. Martineau had argued that, wherever the science of nature is compelled to speak of "accidental" variations, it so far confesses itself at fault, he would have found that Mr. Darwin himself would have agreed with him. The "accidental" is that which is not yet brought under the reign of law as we know it, and the whole object of science is to eliminate accident, or reduce it to a *minimum*. Therefore the capital made out of the word "accidental" and the admittedly unfortunate phrase "natural selection" seems to us both unappreciative and unfair. And it prepared us for a good deal. But the following passage, we should have said beforehand, could not have come from the writer of "The Types of Ethical Theory."

"If a casual slip, or trick of fancy, can be stereotyped and transmitted, and entered on the books at last as a law of nature, it certainly puts all awkward people under a more serious responsibility than they had suspected. A gentleman, knocking at the wrong door for a dinner engagement, and shown into the drawing-room, might become the founder of a new race with whom it would be a moral axiom to entertain everybody's guest but your own" [!] (vol. i. p. 286).

Yet, though Dr. Martineau approaches Darwinism in a needlessly hostile spirit, he does much—and if he had been less polemical might have done much more—in claiming the marvellous adapta-

tions which Darwin brought to light as witnessing to a selecting Mind at the source. Only, instead of reminding us of what is, no doubt, in a sense true, that Darwinism may be affiliated through Lucretius and Epicurus to Empedocles, it would have been far more to the point to show that its real affinity is rather with the Aristotelian view of the rationality of nature than with the atomistic theories of Empedocles; and that in seeking to substitute the reign of law for the reign of accident, it implicitly retracts its own denial of design. That nature is rational throughout, that there is nothing really useless or unmeaning in it, is a view which the Darwinian is as much pledged to maintain as the theist. And one who approaches the question with the presuppositions of theism may at once claim all this as confirmatory of the belief in which he starts. But even the elimination of chance and the substitution of law and purpose will not lead by a necessary inference to a personal God. No one can more vigorously defend the rationality and purposiveness of nature than does Aristotle. Yet, *pace* S. Thomas, Aristotle was not a theist.

From God as Cause, Dr. Martineau passes to the question of God as Perfect, and has some excellent sections on the conflicting moral attributes of the world, and the existence of evil and pain. We are inclined to think, however, that if the modern tendency is to make too much of pain and suffer-

ing in nature, Dr. Martineau runs into the other extreme. In looking out upon nature there is surely more strain put upon the belief that God is good, than upon the belief that He acts with a purpose. In both cases we may fall back on our limited knowledge. We may argue that what seems purposeless must have a purpose, though we cannot at present trace it; and *pari ratione* that what seems immoral cannot be really so. But this is to do exactly what a mere empiricist refuses to allow; it is to make the preconception bear the whole weight of the conclusion, when the *à posteriori* argument fails us.

The last book, dealing with the life to come, will be for many the most interesting part of the two volumes. Dr. Martineau is always at his best when he is on the firm ground of experienced fact, either in morals or religion. He is never afraid to say that a theory which is driven to the expedient of pronouncing a fact of ordinary consciousness a delusion, or an "illusion," is self-condemned. Hence he vigorously defends in the region of morals the fact of freedom as against all forms of determinism, and the supremacy of right against all attempts to reduce it to hedonism. It is the same in religion. Religion means not only a real relation between man and a Personal God, but a real belief in a personal immortality. This last point is most vividly brought out in the pathetic

correspondence between Schleiermacher and the young widow of Ehrenfried von Willich. Dr. Martineau could hardly have chosen a more telling illustration of the contrast between what the soul craves for and what pantheism has to offer it. To be "melted away in the great all," "to live simply in the divine whole to which I belong," are phrases which sound grand on the lips of a philosopher; but to the human heart, in its desolation, they are as barren of comfort as the doctrine of the eternity of matter. Immortality means *personal* immortality or it means nothing, as religion means the worship of a Personal God or it has no claim to call itself religion. And in one case, as in the other, we gain nothing by diluting terms till they lose any definite meaning.

But though nothing can be better than the assertion and vindication of the facts which underlie morals and religion, when we pass on, as we are bound to do, to the metaphysical problems which lie behind them, Dr. Martineau seems to fail us, and we close his two volumes with the uncomfortable feeling that he has not fully realised the difficulties of his own position, especially in the higher regions. Starting with "the assumptions universally made by the consciousness of mankind," he shows that freedom implies a deciding power between two competing solicitations, and that either this is true or moral

judgment is impossible. If it is true, we learn from the exercise of the will what causality is, and from the authority of duty the supremacy of right. Thence we rise to the conception of God as "Supreme Mind and Will directing the universe and holding moral relations with human life;" and the belief in a personal God at the same time satisfies the religious instincts and safeguards morality.

Why, then, is not this conclusion universally accepted? Men do not abandon religion or their belief in God, till they have somehow persuaded themselves that Personality and Deity are incompatible terms, and then they drift away into what, though they may still call it "theism," is undistinguishable from pantheism. "An anthropomorphic God," says Mr. Morison, "is the only God whom men can worship, and also the God whom modern thought finds it increasingly difficult to believe in" ("Service of Man," p. 49). For "anthropomorphic" we may here read "Personal" in contrast with "a mere metaphysical deity, an absolute First Cause defecated to a pure transparency;" in a word, the God of religion in contrast with the "Absolute" of philosophy. But why is a Personal God so difficult to believe in? And why does "theism," if it be not Christian, so easily degenerate into pantheism? Dr. Martineau seems hardly to feel the difficulty, and certainly does not face

it. He sees very clearly how fatal pantheism is to religion and ultimately to morals, and no less clearly does he see that a true theism must include all that pantheism has to affirm as to the *immanence* of God in nature, refusing only the pantheist's *negative* assertion "that beyond the natural order of things and prior to it no divine life or agency can be." He sees, too, that religion demands not a God "emerging as the climax of evolution," and requiring the existence of nature as His "Other," but a God Who was God before the world was, and this demand neither Spinozism nor Hegelianism can satisfy.

But though he sees so clearly the requirements of the religious nature, and the inability of pantheism to satisfy them, he does little or nothing to answer the question, How can God be, in any sense intelligible to us, a self-conscious Personality? The theism which for eighteen hundred years has successfully resisted the attacks of materialism on the one side and pantheism on the other, a theism under the shadow of which, since the Reformation, Unitarianism has enjoyed a precarious existence, gives an answer in the Christian doctrine of the Trinity. But this doctrine is not discussed, or, so far as we remember, even mentioned, by Dr. Martineau. He half apologises for the use of the term Personality, as applied to God, lest any one should think it "spoiled by the

Athanasian controversy." But he apparently has no notion that, apart altogether from Scriptural and ecclesiastical authority, the doctrine of the Holy Trinity has for the intelligent Christian a philosophical meaning and value which might at least make it worthy of the consideration of one who writes in defence of theism. Yet in an attempted *eirenicon*, recently contributed to the *Christian Reformer*, Dr. Martineau shows us how far he is as yet from understanding the Christian teaching about God. When, then, he approaches the question of the personality of God, he wavers between two answers, one of which lays him open to the criticism he justly passes upon pantheism, while the other carries him unconsciously in the direction of Christian theology :—

"The *personality* of God consists," we are told, "in His voluntary agency as free cause in an unpledged sphere, that is, a sphere transcending that of immanent law. But precisely this also it is that constitutes His *Infinity*; extending His sway, after it has filled the actual, over all the possible, and giving command over indefinite alternatives. Hence, it is plain, His personality and His infinity are so far inseparable concomitants that, though you might deny His infinitude without prejudice to His personality, you can not deny His personality without sacrificing His infinitude; for there is a mode of action,—the *preferential*,—the very mode which distinguishes rational beings,—from which you exclude Him. Yet we are constantly told that a personal being is necessarily finite; that he is an individual, not a universal; restricted to a definite centre of consciousness and activity, into which and from which influences flow that

make up his life. In short, *a self* implies an *other-than-self*, and so gives two spheres of being, only one of which would be God, while the other was His negative. According to the division which we have been defending, this second and antithetic term is the aggregate of rational and moral beings, represented in our world by Man" (vol. ii. p. 192).

Dr. Martineau cannot have faced the consequences of this statement. For it seems to say that the personality of God implies an *other-than-self*, and this *other-than-self* is the aggregate of rational and moral beings. It follows that either these rational and moral beings were coeternal with God, or else that God was not personal till they came into being. In the former case, we have beings which are not God and are yet coeternal with God; in the latter, created beings become the condition of God's personality. When Meister Eckhart teaches this doctrine and says plainly that God can as little do without man as man without God; or when Hegel says that without the world God would not be God, we call it pantheism. But when Dr. Martineau seems to say that man is the *other-than-self* implied in the Selfhood of God, we can only suppose that he has not realised what is implied in such a statement.

Some fifty pages before this, however, he had given a suggested explanation of a different kind:—

"By what process or rule of possibility," he asks, "can the absolutely One cease to be one and pass into a duality? the self-identical become or find what is other than itself?

Is it that mind is in itself a dual existence, inasmuch as it involves at once a thinking subject and an object thought? Yes; but in the primal absence of all save God, *both of these are within himself*, to whom by hypothesis there is nothing external, and can amount only to self-consciousness without direction on what is *other than himself*."

In this passage "the absolutely One" is "a dual existence," and finds the *other-than-himself* within Himself. We leave it to our readers to reconcile these two views, or to choose between them, only we would point out that, if the former leans towards pantheism, the latter puts us on the lines of S. Athanasius, when he argues against the Arians that the Fatherhood of God does not depend on created sons, and of S. Augustine, when in the *De Trinitate* he argues that God did not become love when He had created objects for His love.

It is here that we notice the curious parallelism to which we have alluded by anticipation, and of which Dr. Martineau seems unaware. He sees that when the authority of conscience has been challenged and the life of "childlike trust" is no longer possible, ethics "must either perfect themselves in religion, or disintegrate themselves into hedonism." A thinking Christian says the same of theism. Men have dared to ask—How can God be, what theism says He is and ever has been, a Self-conscious Personality? We cannot burke the question, or content ourselves with simply reasserting the fact. And, therefore, theism must

either "perfect itself" in the Christian conception of God or dissipate itself into pantheism. Dr. Martineau does not indeed say that no one can really believe in the authority of conscience unless he is a theist, for "conscience may act as human before it is felt to be divine ;" but he does say that while it so acts "it is pausing short of its complete development." Similarly we do not say no one can really be a theist unless he is a Christian—we need no nobler refutation of such a statement than is to be found in Dr. Martineau himself—but we do say that Trinitarianism is the only safeguard of a living and lasting theism, and that, except as a temporary halting-place, non-Christian theism is for the younger generation almost impossible.

A century ago Bishop Horsley wrote to Dr. Priestley :—" If you imagine that the absolute unity of the Divine substance is more easy to be explained than the Trinity, let me entreat you, sir, to read the 'Parmenides' " (" Tracts," p. 287). In an age which is becoming metaphysical in spite of itself and its antecedents, the strength of this argument is increasingly felt, and men are driven to the conviction that God cannot be what religion requires Him to be—a Self-conscious Personal Being, and, at the same time, what the Unitarian makes Him—an Undifferentiated Unit, an Absolute One. So far, then, from the doctrine of the Holy Trinity being, as so many

think, an extra strain laid upon the faith of those who have accepted theism, it claims to be God's revelation to human reason of the inner nature of that truth which theism holds dear, but which non-Christian theism is becoming daily less able to maintain.

All through the "Types of Ethical Theory" Dr. Martineau was fighting side by side with Christian theists; all through "The Study of Religion" we feel convinced that the conditions of religious life, as he has so truly laid them down, can be satisfied by nothing short of the Christian view of God, and yet, to his great loss and ours, he is precluded from the use of those weapons which have proved so powerful in the hands of S. Athanasius, S. Augustine, and S. Thomas.

VI.

DARWINISM AND THE CHRISTIAN
FAITH.*

THE publication of the "Life and Letters of Charles Darwin," seems a fitting opportunity for attempting to face the question how far Darwinism affects Christian faith, and what are the points of traditional interpretation or apology which are modified by it. Christian theology has no fear of scientific discoveries. It claims all truth as belonging of right to Him Who is the Truth. But Christian theologians are but slowly learning that panic fear of new theories is as unreasonable as the attempt to base the eternal truth of religion on what may eventually prove to be a transient phase of scientific belief.

With regard to evolution, however, we are dealing with what may fairly claim to be an established doctrine. Certainly it is not too much to say that in the scientific world it has won its way to security, and has brought over to its side the vast majority

* "The Life and Letters of Charles Darwin." London, 1887.

of those who have a right to give an opinion on the scientific question. In saying this, however, we do not mean that evolution is stereotyped in the form in which Darwin gave it to the world. No one would more indignantly resent such a possibility than Darwin himself. And it is remarkable that the year which told us the story of Darwin's work and life, found us face to face with two attempts to carry out the doctrine of evolution in different and, as it seems, mutually inconsistent lines. In the July number of the *Journal of the Linnæan Society*, 1886, Mr. Romanes propounded a theory—perhaps we should more properly say suggested for consideration a theory—to which he gave the name of physiological selection. In the next year, thanks to two excellent articles in *Nature* by Prof. Moseley, and a paper at the British Association on Polar Globules by Prof. Weismann himself, we were introduced to the "Germ-plasma" doctrine.

What is commonly known as Darwinism includes in it two elements which are by no means necessarily connected, the one the Lamarckian theory of descent, the other the more strictly Darwinian theory of natural selection. We had got so accustomed to being told that the experience of one generation became the instinct of the next, and that the transmission of acquired habits was one of the most important, as well as the most obvious,

factors in the variation of species, that it is somewhat startling to be told now that there is no verified case of the transmission of acquired characters, and that the Lamarckian doctrine of descent was never essential to Darwinism, though it existed as a survival in it. Yet this, in short, is Prof. Weismann's view, and it was received with general favour at the Manchester meeting of the British Association.

It would seem to those who speak without special knowledge, that the two views advocated respectively by Mr. Romanes and Prof. Weismann are mutually incompatible, and that the latter view if adopted would be fatal to some of the most cherished theories of Herbert Spencer. According to Mr. Romanes, "natural selection is not a theory of the origin of species." * According to Prof. Weismann, natural selection is the main cause of their origin. Mr. Romanes talks of the "swamping effects of intercrossing," while Prof. Weismann sees in every case of sexual reproduction a multiplication of the possibilities of adaptation to an unfavourable environment. Finally, Mr. Romanes postulates a highly variable reproductive system of which no explanation is given, and by this he would explain the sterility of species *inter se*; Prof. Weismann carries us back to the Protophyta and Protozoa, and to

* *Journal*, p. 398.

the direct action of environment upon these, from which, in the Metaphyta and Metazoa, by sexual reproduction we get "spontaneous" tendencies multiplied in geometrical ratio. These "spontaneous," or, as we prefer to call them, "inherent," tendencies or characters are transmissible, acquired characters are not.

We trust we have not misrepresented these views. We notice them, not in the least with a view to deciding between them, though there is little doubt which way the balance of scientific authority at present inclines, still less with the wish to make capital out of their disagreement, but in order to emphasise the fact that, while evolution is generally accepted in the scientific world, there is much which as yet is unsettled ; in other words, that while every competent man of science now believes in the origin of species by progressive variations, we cannot be too much on our guard against stereotyping any theory as to the proximate causes. It is nearly as true now as when Darwin wrote it, in 1878, that though—

"There is almost complete unanimity amongst biologists about evolution," "there is still considerable difference as to the means, such as how far natural selection has acted, and how far external conditions, or whether there exists some mysterious innate tendency to perfectibility." *

In the present articles we propose to deal with the doctrine so far as it is generally accepted by

* "Life and Letters," vol. iii. p. 236.

scientific men, and, without attempting to discuss the evidence on which the doctrine rests, to try and answer the following question :—

Given a Churchman who accepts the dogmatic position of the English Church on the one hand, and who, so far as he is able to understand it, believes the doctrine of evolution to be the truest solution yet discovered by science of the facts open to its observation, what reconstruction of traditionally accepted views and arguments is necessary and possible? How is he to relate the new truth with the old?

In so stating the problem we put out of court three classes of persons—(a) those who, entrenched in the fortress of religious certainty, are content to leave intellectual problems alone, and ignore the movement of scientific thought around them; (β) those who are so “immersed in matter” that the religious side of their nature has become atrophied by disuse; and (γ) those who possess the wonderful power of keeping their intellectual and religious life “sundered as with an axe,” who if they were challenged to give a theory of human nature, would have to represent it as if it were a modern ironclad built in water-tight compartments.

In contrast, then, with these three classes we take the case of an ordinary Churchman, with perhaps something more than the ordinary intellectual and speculative interests, and certainly with more

knowledge of what is *de fide*, and what is not, than most Churchmen possess—a man who rejects the modern panacea of indefiniteness, and refuses, even though he might claim the precedent of a Homeric goddess, to throw over the battle-field “a nimbus of golden mist” to cover the retreat or defeat of a favourite hero. Such a man, accepting Darwinism, will expect not only that a reconstruction, or at least a resetting, of his beliefs will be necessary, but also that real effort, moral and intellectual, will be required for the work. No new truth can without effort, be related with the truth already appropriated by the mind, and the wider and more far-reaching the new truth is, the greater the effort which will be required. This is why the inrush of new truth means unsettlement, and perhaps, in the reconstruction, a renouncing of something which has been associated with spiritual truth, though not of the essence of the truth itself.

Dr. Asa Gray, the American botanist, writing to Mr. Darwin about the “Origin of Species,”* says:—

“It is refreshing to find a person with a new theory who frankly confesses that he finds difficulties, insurmountable at least for the present. I know some people who never have any difficulties to speak of.”

In attempting to answer the question we have proposed to ourselves, we do not profess to be of the number of those happy, or unhappy, people

* “Life and Letters,” vol. ii. p. 217.

who have "no difficulties." We can, at most, hope to remove some difficulties which are more apparent than real, and with regard to others, to suggest hints which have helped us, in the hope that they may be of use to others.

Evolution and Creation.

I. The first difficulty which will probably occur to any one is this : Darwinism offers an explanation of the origin of species. How is this reconcilable with the first article of the Creed, the first sentence of the Bible ? A man of average intelligence will not hesitate long here, unless the issue has been confused for him by the one-sided statements of ignorant partisans. For science neither says, nor professes to say, anything about the ultimate origin of things. Mr. Darwin says :—

"I believe that all animals are descended from at most only four or five progenitors, and plants from an equal or lesser number." * "All the organic beings which have ever lived on this earth may be descended from some one primordial form." †

And he adds :—

"There is grandeur in this view of life with its several powers having been originally breathed by the Creator into a few forms or into one." ‡

Haeckel, and some other evolutionists, would go farther. They would believe, though all the

* "Origin," p. 424. † *Ibid.*, p. 425. ‡ *Ibid.*, p. 429.

experimental evidence is at present against such a view, that life ultimately arose from inorganic matter. But even here there is no suggestion as to the ultimate origin of that matter out of which all the world, as we know it, came. In the language of technical theology, evolution deals with secondary (*i.e.* derivative), but does not touch primary, creation. In Haeckel's less exact way of stating the distinction it deals with "creation of form," but knows nothing about "creation of matter." Of the latter, *i.e.* original creation, Haeckel says:—

"This process, if indeed it ever took place, is completely beyond human comprehension, and can therefore never become a subject of scientific inquiry."*

Prof. Tyndall, speaking of the "evolution hypothesis," says:—"It does not solve—it does not profess to solve—the ultimate mystery of this universe. It leaves, in fact, that mystery untouched."† Prof. Clifford, again, says:—"Of the beginning of the universe we know nothing at all." Herbert Spencer, indeed, rejects primary creation, but not on the ground that evolution offers an alternative for it, but because it is "literally unthinkable;" and Prof. Huxley seems to argue that as science knows nothing about it, nothing can be known. But Mr. Darwin tells us that "the

* "History of Creation," I., p. 8, Eng. Tr.

† "Scientific Use of the Imagination," p. 49.

theory of evolution is quite compatible with the belief in a God;" * that when he was collecting facts for the "Origin," his "belief in what is called a Personal God was as firm as that of Dr. Pusey himself;" † while, even at the time when the "Origin of Species" was published, he "deserved to be called a Theist." ‡ Later on he says:—"The mystery of the beginning of all things is insoluble by us; and I for one must be content to remain an Agnostic. Yet, three years later (1879), in a private letter, he writes:—"In my most extreme fluctuations I have never been an atheist in the sense of denying the existence of God." § These quotations, which of course might easily be multiplied, are enough to show that evolution neither is, nor pretends to be, an alternative theory to original creation. An evolutionist, therefore, who denies the fact of creation goes as far beyond the evidence which science offers, as if he had asserted his belief in "the Maker of heaven and earth."

Special Creation and Derivation.

2. But then evolution does clearly offer us a theory as to how the world came to be what it now is, and in this we are told it contradicts the Bible and the unvarying faith of Christendom. We have here a clear issue raised between two

* Vol. I., p. 307.

† Vol. I., p. 313.

‡ Vol. III., p. 236

§ *Ibid.*, p. 304.

alternative theories, the one the theory of Darwin, the other the theory of "special creation," and they are mutually destructive. If the theory of "special creation" is true, Darwinism is false; if Darwinism is true, "special creation" is false. And this issue is plainly accepted by both parties. Thus Mr. Darwin says, "I have at least done good service in overthrowing the dogma of separate creations;" and Haeckel, in vol. i., p. 117, of his "Evolution of Man," boasts that—

"When, in 1873, the grave closed over Louis Agassiz, the last great upholder of the constancy of species and of miraculous creation, the dogma of the constancy of species came to an end, and the contrary assumption—the assertion that all the various species descend from common ancestral forms—now no longer encounters serious difficulty."

Darwin was fully aware of the opposition his theory would have to encounter. And he feared the men of science as much as the theologians. "Authors," he says, "of the highest eminence seem to be fully satisfied that each species has been independently created." When he first hinted at the theory to Joseph Hooker, in 1843, he says, "I am almost convinced that species are not (it is like confessing a murder) immutable,"* and his utmost hope is that he may be able "to show, even to sound naturalists, that there are two sides to the question of the immutability of species,"† and that "allied species are co-descendants from common stocks."‡

* II., 23.

† II., 29.

‡ II., 32.

Whether true or not scientifically, this does not sound like a dangerous heresy, and yet the outcry raised from the side of religion was as great as that raised by contemporary science. Even now religious people are surprised to be told that it is a purely scientific question, to be decided solely on scientific evidence, and to be dealt with effectively only by scientific men. It is not the question whether species were created by God or came into existence independently of Him, or (as Huckleberry Finn puts it) "whether they were made, or whether they just *happened*." For science repudiates chance—except as a name for unexplained causation—as earnestly as religion does. It is a question between two views as to secondary creation, or, more strictly, between a theory, and the denial of the possibility of a theory, as to the method of this creation. The question is this:—Were species directly created at the first, or by intermediate stages, as individuals are? * Were they independently created or descended from other species? † "To say that species were created so and so," says Mr. Darwin, "is no scientific explanation, only a reverent way of saying it is so and so." ‡ "Special creation" is here on the Agnostic side, while evolution at least attempts to bring God's action in the past in line with His action in the present; His creation of species with His creation of individuals.

* II., 34.

† II., 78.

‡ II., 79.

According to special creation, forms of life are produced by the will of God, having, indeed, the minutest analogies to one another, and yet having no relation to one another. According to evolution, species are not merely created by God, but created by Him according to a method which relates each species with the rest, and explains their analogies, like family likenesses, by a common ancestry.

We have purposely stated this in the language of religion, as Mr. Darwin not unfrequently does. But it is a purely scientific question, and Mr. Darwin, we think rightly, afterwards expressed his regret at having used "the Pentateuchal term of creation," * because of creation, in its strict sense, as ultimate origin, science knows and can know nothing. The question thus becomes one between those who hold, and those who deny, the immutability of species. The last are commonly spoken of as "Transmutationists:" the former might have been nick-named "Immutables," but unfortunately they were too often called "Creationists," and the scientific issue was obscured for both parties by theological *animus*. Hence a belief in God as Creator came to be associated with the denial of transmutation, and a theory of transmutation was supposed to imply a rejection of the Christian creed.

It is really time that the doctrine of "special

* III., 18.

creations," which some theologians cling to so tenaciously, was held up to the light. Where did it come from? Who invented it? Everybody will at once say, "the schoolmen," because nobody reads the schoolmen, and people have a vague notion that "genus" and "species" are as much a monopoly of the schoolmen as are "entity" and "quiddity." But the schoolmen believed in creation by natural evolution. S. Thomas holds that the various kinds were not constituted at once, but that they were evolved by the operation of natural causes. The "reign of law," which is a commonplace with us, was unknown even in the days of Bacon. It is hardly credible to us that Lord Bacon, "the father of modern science" as he is called, though he was only a schoolman touched with empiricism, believed not only that one species might pass into another, but that it was a matter of chance what the transmutation would be. Sometimes the mediæval notion of vivification from putrefaction is appealed to, as where he explains the reason why oak boughs put into the earth send forth wild vines, "which, if it be true (no doubt)," he says, * "it is not the oak that turneth into a vine, but the oak bough, putrefying, qualifieth the earth to put forth a vine of itself." Sometimes he suggests a reason which implies a kind of law, as when he thinks that the stump of a beech tree when cut down will "put

* *Nat. Hist. Cent.*, vi., 522, fol. ed.

forth birch," because it is a "tree of a smaller kind which needeth less nourishment." * Elsewhere he suggests the experiment of polling a willow to see what it will turn into, he himself having seen one which had a bracken fern growing out of it! And he takes it as probable, though it is *inter magnalia naturae*, that "whatever creature having life is generated without seed, that creature will change out of one species into another." Bacon looks upon the seed as a restraining power, limiting a variation which, in spontaneous generations, is practically infinite, "for it is the seed, and the nature of it, which locketh and boundeth in the creature that it doth not expatiate." Here the fact of transmutation is taken for granted, generation from putrefaction being sometimes called in as a *deus ex machinâ* to explain it. But Bacon certainly had no idea that the existing species of plants and animals represent those originally created by God, and this is what special creation means.

It might be supposed, however, that the doctrine of "special creation" was the private property of commentators and theologians, suggested by the account of creation given in Genesis. And there were, no doubt, those who in all ages have so interpreted the words "after his kind." But Christianity was in no way committed to this view, while S. Augustine ("De Genesi ad literam,"

* Nat. Hist. Cent., 523

Lib. V., cap. v. and cap. xxiii.) distinctly rejects it in favour of a view which, without any violence to language, we may call a theory of evolution. Nor can it fairly claim the *imprimatur* of the mediæval theologians, with whom development, in its Aristotelian or metaphysical dress, was a commonplace. The greatest of the schoolmen, if he did not adopt S. Augustine's view, at least recognised it as tenable. His words are so remarkable that they are worth quoting, especially as we have never seen them referred to in this connection :—

“As to the production of plants, Augustine holds a different view. For some expositors say that, on this third day (of creation), plants were actually produced each in his kind—a view which is favoured by a superficial reading of the letter of Scripture. But Augustine says that the earth is then said to have brought forth grass and trees *causaliter*—*i.e.* it then received the power to produce them. This view he confirms by the authority of Scripture, which says, ‘These are the generations of the heaven and of the earth, when they were created, in the day that the Lord God made the earth and the heavens, and every plant of the field before it was in the earth, and every herb of the field, before it grew.’—*Gen.* ii. 4. Before, then, they came into being on the earth they were made causally in the earth. And this is confirmed by reason. For in those first days God made creatures primarily or *causaliter*, and then rested from His work, and yet after that, by His superintendence of things created, He works even to this day in the work of propagation. For the production of plants from the earth belongs to the work of propagation” (S. Thom. Aq., “*Summa Theol.*,” Prima Pars. Quæst. LXIX., art. 2).

Here, though there is no idea of the method by

which the "kinds" were brought forth from the earth, or of their inter-relations with one another, nothing of what we should call a *scientific* account, there is a clear conception of creation by growth or evolution, which is quite contrary to what is known as special creation. And when we remember that the schoolmen held what is now called *abiogenesis* and generation from putrefaction, both in botany and zoology, we feel at once how infinitely more elastic their theory of nature was than that which is implied in the doctrine of special creation. But if special creation is a doctrine unknown to Bacon and unauthorised by S. Thomas, it is not likely to be essential either to science or religion.

Where, then, did it come from? It includes elements both scientific and religious, and it is interesting to notice how the elements combined.

Half a century after Bacon's "Novum Organon" was published, a great poem appeared, which has since then, often unconsciously, influenced theologians and apologists. It is no doubt a thankless and ungenerous task to bring the heavy artillery of science to bear upon poetry, and it is only justifiable when truth is endangered. Some time ago Nasmyth, by the help of the *Nautical Almanack*, discovered that if Sir John Moore was buried "at dead of night" he could not have had the advantage of "the struggling moonbeam's misty light," because the moon must have been far below the

horizon at the time. When this criticism was reported to the late President of the Royal Irish Academy by Sir R. S. Ball, he is said to have replied, "I'll tell you what it is, the time will come when that little poem will be taken as the sole authority about the matter, and all your astronomical calculations will go for nothing at all." This is very much what has happened in the case of "Paradise Lost." People have come to think of it as a sort of inspired gloss on the early chapters of Genesis. Yet there is a huge difference between the text and the commentary. In the Bible we have, "And God said, 'Let the earth bring forth,' " etc., words which are at least consistent with a gradual development. But Milton says :—

"The grassy clods now calved ; now half appeared
The tawny lion, pawing to get free
His hinder parts, then springs as broke from bonds
And rampant shakes his brinded mane ; the ounce,
The libbard, and the tiger, as the mole
Rising, the crumbled earth above them threw
In hillocks : the swift stag from under ground
Bore up his branching head ; " etc., etc.*

* "Par. Lost," Bk. VII., 414 *et seq.* Prof. Huxley has referred me to his American Addresses, which I had not seen, in which he has taken the same view of Milton's influence on the special creation doctrine. It is only fair, however, to Milton to compare with this another view of creation in Bk. V. In both cases Raphael is represented as the speaker. But if the passage quoted in the text implies "special creation," the following passage implies "creation by evolution." After speaking of "first matter" and its gradual refinement "till body up to spirit work," the poet completes the series as follows :—

This is literalism and realism with a vengeance !
And yet it is hard to see why Milton should not
do in poetry what Raphael in the Vatican had
done in art.

But what gives such importance to the account of
creation in "Paradise Lost" is, that it synchronised,
curiously enough, with the first attempt to limit
the logical term "species" to a definite natural
history usage. This was the work of Milton's
younger contemporary, John Ray, from whom the
theory of the fixity of species may be said to date.
Whether Milton influenced Ray, or Ray Milton, or
whether the theory was "in the air," it is difficult
to say. But in the next century we find in Lin-
næus the meeting point of Milton's *à priori* view
of creation and Ray's unscientific doctrine of fixed
species. The well-known words of Linnæus, in the

" So from the root
Springs lighter the green stalk, from thence the leaves
More aery, last the bright consummate flow'r
Spirits odorous breathes : flow'rs and their fruit,
Man's nourishment, by gradual scale sublimed,
To vital spirits aspire, to animal,
To intellectual ; give both life and sense,
Fancy and understanding ; whence the soul
Reason receives, and reason is her being,
Discursive or intuitive ; discourse
Is ofttest yours, the latter most is ours,
Differing but in degree, of kind the same."

The interesting thing here is that this evolutionary view betrays, at
every point, its scholastic origin, not only in the general view of
progressive development from *materia prima* to human and angelic
intelligence, but in its use at each stage of technical scholastic terms.

"Philosophia Botanica," "Species tot sunt, quot diversas formas ab initio prouexit Infinitum Ens, quae formae, secundum generationis inditas leges prouexere plures, at sibi semper similes," are thus the first formulation of the theory of special creation, which angry evolutionists attack and unwise apologists defend. In Linnæus's own time it came to be generally accepted, though questioned by Buffon, who contended for the modifiableness of species. Popular belief in the Linnæan doctrine, though confirmed by Cuvier, seems to have been shaken by Lamarck at the beginning of the present century, and destroyed by Darwin's "Origin of Species." And yet the dead hand of an exploded scientific theory rests upon theology, and Christians in all good faith set to work to defend a view which has neither Biblical, nor patristic, nor mediæval authority.

It is difficult *à priori* to see how the question, except by a confusion, becomes a religious question at all. Writing to a lady who had consulted him as to the bearing of evolution on theology, Mr. Darwin says:—"I cannot see how the belief that all organic beings, including man, have been genetically derived from some simple being, instead of having been separately created, bears on your difficulties";* and at the close of the "Origin of Species" he had written in the same spirit, "I see no good

* III., p. 64.

reason why the views given in this volume should shock the religious feelings of any one."* The Bible, no doubt, in its vivid consciousness of the omnipresence of God speaks of everything as wrought by Him. He makes the grass to grow. He feeds the ravens. He clothes the lilies. He lets His breath go forth and the beasts of the field are made. Children and the fruit of the womb are His gift. He covers the infant in the mother's womb, and fashions its limbs as they are made in secret. Does any sane man suppose that this conflicts with what we know of the laws of growth and generation, or that it implies an obliterating or an abridgment of what we call natural processes? There is no doubt that a theory of "special creation" as against "creation by derivation" (for this is the true antithesis) possesses a strange attraction for some minds, just as some cling to a Calvinistic theory of "immutable decrees," though at the price of making God an arbitrary, if not immoral, despot. But we do not really make God more mighty by ascribing to Him actions which are unintelligible, nor do we derogate from His power by showing that the Maker of Heaven and earth is not autocratic, or capricious, or irrational, but works according to law.

It may, however, be said—"Creation is a great mystery. Why attempt to theorise about it? To

* p. 421.

speculate upon a mystery is to rationalise it." There seems to be only one answer to this objection, and it is that reason is the gift of God and not of the devil, and therefore it cannot be wrong to try and understand what we believe. Preaching at S. Paul's on Christmas Day, 1887, on the supreme mystery of the Incarnation, Dr. Liddon says :—

"It was perhaps inevitable that the question should be asked, How such a union of two natures which differ as the Creator differs from the creature—as the infinite differs from the finite—was possible? It might be enough to reply that with God all things are possible—all things, at least, which do not contradict His moral perfections—that is to say, His essential nature. . . . But, in truth, it ought not to be difficult for a being possessed of such a composite nature as is man to answer this question."

And he proceeds to draw out the analogy suggested and justified by the Athanasian Creed, "As the reasonable soul and flesh is one man, so God and Man is one Christ." If it is not wrong, nay, if it is a very necessity of Christian reason, to ask how the union of God and man is possible? it cannot be wrong to ask, How is creation possible? and to answer it by the analogy of what we see and know.

But the moment this question is asked in the present state of scientific knowledge, two things become increasingly apparent—(a) the enormous difficulties which, on the theological side alone, a theory of "special creation" has to face, and

(β) the remarkable gain to theology, if evolution rather than "special creation" is true. In both cases we propose to put the scientific evidence for evolution on one side, and treat it as a bare hypothesis.

(α) Nothing has brought out the difficulty of the "special creation" theory more strongly than the modern science of comparative embryology. It has added enormously to our knowledge of the existence of (apart from its suggested explanation of) rudimentary organs, and rudimentary organs have always been a difficulty in the way of the "special creation" hypothesis. Take the case of the whale. As Prof. Flower pointed out at the Reading Church Congress, it possesses in the embryo state a complete set of teeth, together with rudimentary hind legs, furnished with bones, joints, and muscles, of which there is no trace externally. Yet, before birth, the teeth disappear, and the vestigial legs remain through life concealed within the body. On the theory that the whale is a descendant of a land animal, which used both legs and teeth, they are intelligible as survivals in a creature to which they are apparently useless. But that God should have created these structures in a new being, which had no organic relation with other created forms of life, seems almost inconceivable. We can neither believe that they were created "for mere sport or variety," nor that they

are "Divine mockeries," nor, as an ingenious but anthropomorphic writer in the *Spectator* suggested, in a review of the "Origin of Species," that God economically kept to the old plan, though its details had ceased to have either appropriateness or use. The difficulties are even stronger in the case of man, and the now well-known facts of his embryonic life. How is it possible, in the face of these, to maintain that we have in man a creation independent of the rest of God's creative work? Of course if the theory of "special creation" existed either in the Bible or in Christian antiquity, we might bravely try and do battle for it. But it came to us some two centuries ago from the side of science, with the *imprimatur* of a Puritan poet. And, though scientific men are now glad to palm off upon theologians their own mistakes, religion is not bound to wear, still less to be proud of, the cast-off clothes of physical science.

(β) On the other hand, and again apart from the scientific evidence in favour of evolution, *as a theory* it is infinitely more Christian than the theory of "special creation." For it implies the immanence of God in nature, and the omnipresence of His creative power. Those who opposed the doctrine of evolution in defence of "a continued intervention" of God, seem to have failed to notice that *a theory of occasional intervention implies as its correlative a theory of ordinary absence.* And this

fitted in well with the deism of the last century. For deism, even when it struggled to be orthodox, constantly spoke of God as we might speak of an absentee landlord, who cares nothing for his property so long as he gets his rent. Yet anything more opposed to the language of the Bible and the Fathers can hardly be imagined. With S. Athanasius, the immanence of the divine Logos is the explanation of the adaptations and unity of nature, as the fact that man is λογικός is the explanation of the truth that man is made in the image of God. Cataclysmal geology and special creation are the scientific analogue of Deism. Order, development, law, are the analogue of the Christian view of God.

We may sum up thus :—For Christians the *facts of nature* are the *acts of God*. Religion relates these facts to God as their Author, science relates them to one another as integral parts of a visible order. Religion *does not* tell us of their inter-relations, science *cannot* speak of their relation to God. Yet the religious view of the world is infinitely deepened and enriched when we not only recognise it as the work of God, but are able to trace the relation of part to part—to follow, if we may say it reverently, the steps by which God worked, to eliminate, so far as possible, from the action of Him, “with Whom is no variableness neither shadow of turning,” all that is arbitrary,

capricious, unreasonable, and even where as yet we cannot explain, to go on in faith and hope.

Natural Selection and the Argument from Design.

3. Up to the point at which we have arrived, a Churchman, in accepting Darwinism, finds no real difficulty. It neither gives nor suggests an alternative for God's primary creation of the world. And though in the "Origin of Species" it does offer an alternative for "special creation," a Christian is only called upon to abandon a theory recently admitted into theology, for one which is not only soluble in the Christian view of creation, but on grounds, both scientific and theological, is more in keeping with what we know of God in His present working. Those who have followed the argument up to the previous point will admit Prof. Huxley's statement that, so far as the "origin of species" is concerned—

"Evolution does not even come into contact with Theism, considered as a philosophical doctrine. That with which it does collide, and with which it is absolutely inconsistent, is the conception of creation which theological [*Quære* scientific?] speculators have based upon the history narrated in the opening of the Book of Genesis."

We are prepared even to go farther and to say not only that Theism does not lose, but that it actually gains by the exchange. If Darwinism has destroyed the "dogma of special creation" it

has destroyed a "dogma" which was a scientific, or rather unscientific, theory, and from which Christianity, like science, should be glad to shake itself free.

But the doctrine of natural selection is said to have destroyed the argument from design in nature. This is a much more serious matter. For a Christian is bound to believe that nature is the work of an all-wise and beneficent Creator, Whom he also believes to be Almighty, so that the Christian cannot accept the view adopted by Mr. J. S. Mill, and make a division of labour, or of territory, between God and a power which limits and thwarts Him. We propose to state the difficulty here as clearly and as strongly as we can, because we believe that it is the difficulty which presses most heavily upon thinking men at the present time. In the case of Mr. Darwin himself we notice that, while the substitution of derivation for special creation seems even to have strengthened his belief in the grandeur of creation, the substitution of natural selection for Paley's teleology cut away the main argument for believing in a God at all.

We are not surprised, then, to find those who are at least in imperfect sympathy with Christianity rejoicing in the discomfiture of the theologians. Mr. G. H. Lewes's Article in the *Fortnightly* of 1868, is perhaps the *locus classicus* for this view. Professor Huxley, with ill-concealed exultation,

tells us that what struck him most forcibly on his first perusal of the "Origin of Species" was "the conviction that teleology, as commonly understood, had received its death-blow at Mr. Darwin's hands." * Haeckel, in the same strain, says,† "Wir erblicken darin den definitiven Tod aller teleologischen und vitalistischen Beurtheilung der Organismen;" and in his "History of Creation" ‡ :—

"I maintain with regard to the much-talked-of 'purpose in nature,' that it really has no existence but for those persons who observe phenomena in animals and plants in the most superficial manner."

From the insolent dogmatism of Haeckel, and the anti-theological *animus* of Lewes and Huxley, it is refreshing to turn to the cautious and reverent utterances of Charles Darwin. In his letters we are able to trace every stage through which he passed on this question. At Cambridge, *circa* 1830, he read carefully and with "much delight" Paley's "Evidences" and his "Natural Theology," and speaks of the reading of these books as the only part of the academical course which was of the least use in the education of his mind,§ but he "did not trouble about" Paley's premisses—*i.e.* he took the existence of God as a Personal Being for granted. Later on, apparently between 1836 and 1839, though he still "did not think much about the

* "Lay Sermons." † "Generelle Morphologie," i., 160.

‡ Vol. I., p. 19, Eng. Tr.

§ I., 47.

existence of a personal God," he abandoned Paley's view, and never returned to it :—

"The old argument from design in nature as given by Paley, which formerly seemed to me so conclusive, fails now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings, and in the action of natural selection, than in the course which the wind blows." *

An incidental allusion, in a letter of 1857,† shows that he had come to look upon a belief in design and a belief in natural selection as alternatives, and mutually exclusive. But here Darwin began to realise the contradiction in which he was involved. On the one side his theory was opposed to Paley's, on the other it was saturated with teleology. "The endless beautiful adaptations which we everywhere meet with,"‡ "the extreme difficulty or rather impossibility of conceiving this immense and wonderful universe, including man with his capacity of looking far backwards and far into futurity, as the result of blind chance or necessity,"§ the fact that "the mind refuses to look at this universe, being what it is, without having been designed" ||—these had to be set off against "the difficulty from the immense amount of suffering" ¶ and the *a priori* unlikelihood that

* I., 309.

† II., 121.

‡ I., 309.

§ I., 312.

|| I., 314.

¶ I., 307.

an omniscient Being should have willed the world as we know it. In 1860, the year after the publication of the "Origin of Species," Darwin had reached the stage of utter bewilderment:—

"I grieve to say," he writes to Asa Gray, "that I cannot honestly go as far as you do about design. I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance; and yet I cannot look at each separate thing as the result of design."*

And in an earlier letter of the same year he says:—

"I am bewildered. I had no intention to write atheistically. But I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and omnipotent God would have designedly created the *Ichneumonidæ* with the express intention of their feeding within the living bodies of caterpillars, or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed. On the other hand, I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance. Not that this notion *at all* satisfies me."†

Elsewhere he says of this suggestion:—"I am aware it is not logical with reference to an omniscient Deity."‡

* II., 353.

† II., 312.

‡ III., 64

It was immediately after the publication of the "Origin of Species" that Darwin set about his work on orchids, in which, more than in any other of his writings, the notion of purpose is prominent, and some ten years later we find him gladly recognising the inherently teleological character of evolution, which had been pointed out in a review by Dr. Asa Gray. Dr. Gray had written :—

"Let us recognise Darwin's great service to natural science in bringing back to it teleology; so that instead of morphology *versus* teleology, we shall have morphology wedded to teleology."

Darwin writes back :—

"What you say about teleology pleases me especially, and I do not think any one else had ever noticed the point. I have always said you were the man to hit the nail on the head."*

Here we are brought face to face with the paradox which had been puzzling Darwin. The theory, which destroyed Paley's doctrine of design, or the old teleological doctrine, unconsciously introduced a new teleology. And the gradual recognition of this new fact is alike curious and instructive. In 1864, when the "Origin of Species" had been four years, and the "Fertilisation of Orchids" two years, before the world, Professor Kölliker, an advanced evolutionist, and a strong opponent of final causes, accuses Darwin of being

* III., 189.

"in the fullest sense of the word a teleologist," and adds that "the teleological general conception adopted by Darwin is a mistaken one."* Prof. Huxley answers Kölliker, and, in defending Darwin, is driven to distinguish between the teleology of Paley and the teleology of evolution. Two years later, in 1866, appeared the Duke of Argyll's "Reign of Law," in which Darwinism was claimed on the side of the doctrine of design; and the next year Huxley, again in criticising a German professor, Haeckel, and his repudiation of teleology, published the remarkable review, some pages from which reappear in the chapter he contributes to Darwin's "Life and Letters,"† and which has more than once been quoted in this connection:—

"The doctrine of evolution," he says, "is the most formidable opponent of all the commoner and coarser forms of teleology. But perhaps the most remarkable service to the philosophy of biology rendered by Mr. Darwin is the reconciliation of teleology and morphology, and the explanation of the facts of both, which his views offer. The teleology which supposes that the eye such as we see it in man, or one of the higher vertebrata, was made with the precise structure it exhibits, for the purpose of enabling the animal which possesses it to see, has undoubtedly received its death-blow. Nevertheless, it is necessary to remember that there is a wider teleology which is not touched by the doctrine of evolution, but is actually based upon the fundamental proposition of evolution."‡

Haeckel's denial of teleology is thus shown to

* Quoted in "Lay Sermons," pp. 329, 330.

† II., 201.

‡ "Critiques and Addresses," p. 305.

prove too much. And the appeal to rudimentary organs against teleology, Huxley points out, places the evolutionist of that day in a dilemma :—

“For either these rudiments are of no use to the animals, in which case . . . they ought to have disappeared ; or they are of some use to the animal, in which case they are no use as arguments against teleology.” *

We can hardly be wrong in assuming that Dr. Asa Gray had this review of Huxley's in his mind when he spoke of—

“The great gain to science from Mr. Darwin's having brought back teleology to natural history. In Darwinism,” he adds, “usefulness and purpose come to the front again as working principles of the first order ; upon them, indeed, the whole system rests.” †

Is there, then, no difference between the old and the new teleology? Is the old argument rehabilitated? Can we say here, as in the triumph of derivation over special creation, that the Christian faith loses nothing and gains much? We are by no means prepared to defend this paradox. The old and rapid argument from nature to an omnipotent and beneficent Author was never logically valid. To a thinking man its death-knell was sounded by Kant long before the death-blow was given by Darwin. In spite of the reverence with which Kant treats an argument, which he speaks of as “the oldest, the clearest, and most in conformity with human reason,” he sees that the very

* “Critiques and Addresses,” p. 308. † “Darwiniana,” chap. iii.

most which could be established by it would be the existence of "an Architect of the world, not a Creator." It must fall very far short of its proposed aim—viz. to prove the existence of an all-sufficient original Being.* Modern science has only brought out, in its own way and for ordinary people, a truth which metaphysicians already knew—viz. that the argument was, as Dr. Gray puts it, "weighted with much more than it can carry." "The burden which our fathers carried comfortably, with some adventitious help, has become too heavy for our shoulders."† The older teleologists noted certain favourable instances, and based on them an argumentative structure which the foundation was quite insufficient to sustain; while, if instances of apparent meaninglessness or misery were adduced, they were put on one side with *Dieu le veut*. In the present day a Christian, whether he is an evolutionist or not, has to run the gauntlet with an army of facts and arguments, of which his forefathers knew nothing. No intelligent man could now write as Paley does:—

"It is a happy world after all. The air, the earth, the water teem with delighted existence. In a spring noon, or a summer evening, on whichever side I turn my eyes, myriads of happy beings crowd upon my view. 'The insect youth are on the wing.' Swarms of new-born flies are trying their pinions in the air. Their sportive motions, their wanton

* "Critique of Pure Reason," Max Müller's Tr., p. 535.

† "Darwiniana," p. 374.

mazes, their gratuitous activity, their continual change of place without use or purpose, testify their joy, and the exultation which they feel in their lately discovered faculties. . . . The whole winged insect tribe, it is probable, are equally intent upon their proper employments, and under every variety of constitution, gratified, and perhaps equally gratified, by the offices which the Author of their nature has assigned to them." *

The Christian of to-day believes, no less firmly than Paley did, that God is omnipotent and that God is love. But the old *couleur de rose* view of nature is no longer possible. "Destruction is the rule; life is the exception." The waste is enormous; the suffering terrible. The many perish: the few survive. All down the scale of sentient being, "perfected by suffering," seems written in unmistakable characters. The law of God's work in nature is indeed *progress*, but progress at a tremendous, and, as it seems to us, reckless cost.† These are facts for which neither evolution, except incidentally, nor any other theory of nature, is responsible. But they are facts of which any theory, theological or scientific, must now take cognisance. They are as fatal to the old teleology of Paley, as the facts of embryology are to the

* "Nat. Theol.," pp. 370, 371.

† My friend Mr. F. A. Dixey, of Wadham College, Oxford, in a private letter objects that I have here overstated the suffering in nature, or, at least, that counterbalancing weight should have been allowed to the serviceableness of pain to the individual. Fortunately, I am now in a condition to remedy the defect by referring to Mr. Dixey's excellent tract on the "Necessity of Pain," which has since been published in the Oxford House series.

theory of independent creations. We may still reverently say, "It is God's will," but that is only an admission that we cannot explain the facts, or justify them to the reason or the conscience. It may be a necessary, as it certainly is a devout, attitude of mind, but there is in it an undertone of despair.

Evolution is not responsible for the problem. Can it help us in the solution? The old teleology was destroyed by the new facts, and Darwin offers us a deeper and wider view of purpose based upon these facts. We used to start with the assumption that everything exists solely for the good of man. And though we expressed our belief in an all-wise and beneficent Creator, our teleological inquiries would sometimes take the unsubmissive form of *Pourquoi Dieu fait-il tant de mouches?* a question which was popularly supposed to merge itself in that of the origin of evil. The new teleology proceeds differently. It seeks to give a reason for the existence of each species, by fitting it into its place in the genealogical tree, and relating all the species to one another in the unity of the whole. As Asa Gray puts it :—

"The forms and species, in all their variety, are not mere ends in themselves, but the whole is a series of means and ends in the contemplation of which we may obtain higher and more comprehensive and perhaps worthier, as well as more consistent, views of design in nature than heretofore." *

* "Darwiniana," p. 378.

So in the case of organs, we believe that "organs have been formed so that their possessors may compete successfully with other beings, and thus increase their number." * We fearlessly then ask, in reference to each part, What is its use? And if it is of no present use, we do not say, "The Creator put it there for symmetry, or as part of a plan," but we ask, What meaning has it had in the past? How can we relate it with bygone, if not with existing, conditions? If *ontogeny*, the history of the individual, gives us no answer, we fall back upon *phylogeny*, the history of the race. Organs, which on the old theory of special creations were useless and meaningless, are now seen to have their explanation in the past or in the future, according as they are rudimentary or nascent. There is nothing useless, nothing meaningless in nature, nothing due to caprice or chance, nothing irrational or without a cause, nothing outside the reign of law. This belief in the universality of law and order is the scientific analogue of the Christian's belief in Providence. And, as Professor Huxley admits, it is "an act of faith," *brought to nature*, and slowly, and as yet only in part, verified *in nature*. Yet to doubt that nature is everywhere rational, and therefore intelligible, would be for a scientific man an act of intellectual suicide.

But if we believe in law and order everywhere

* Darwin, "Life and Letters," I., 310.

in nature, though there is so much which is as yet hopelessly irreducible to law, and if that belief is read *into* nature long before we can read it *in* nature, may we not approach the moral difficulty in the same spirit? For there is here a curious parallel. What our rational nature resents is not the existence of facts which *we* cannot explain, but of facts which *have no* explanation; and what the moral nature rebels at is not suffering and pain, but needless—*i.e.* meaningless—pain, suffering which might have been avoided. And here Darwinism gives us a hint, if it is but a hint. "Natural selection works solely by and for the good of each being."* The arrangement of the world is "generally beneficent,"† and tends to progress towards, or to maintain, perfection. But then—

"Without the competing multitude, no struggle for life, and without this no natural selection and survival of the fittest, no continuous adaptation to changing surroundings, no diversification and improvement leading from lower up to higher forms. So the most puzzling things of all to the old school of teleologists are the *principia* of the Darwinian."‡

It is no final solution of the difficulty, and yet it might suggest to thinking men that to say with King Alphonso of Castile, "If God had called me to His councils things would have been in better order," is, after all, less reverent and less scientific than to say, with Descartes, "Non tantum

* "Origin of Species," p. 428. † "Life and Letters," I., 309.

‡ "Darwiniana," p. 378.

nobis debemus arrogare, ut ejus consiliorum participes nos esse putemus."

We may sum up this part of our subject thus :— One who believes in the God of Christianity is bound to believe that creation is His work from end to end, that it is a rational work, and the work of a Being Who is wholly good. He is bound to believe that "God's mercy is over all His works," that "not a sparrow falls to the ground" without His knowledge, that there is design and purpose everywhere. But he is not bound to know, or to say that he knows, what that purpose is, or to show that marks of beneficence are everywhere apparent. Still less is he bound to assert, as the old teleology did, that he can demonstrate the wisdom and goodness of God from nature alone. Evolution starts with an "act of faith," a postulate of our rational nature—viz. that everything is rational and has a meaning, even that which is at present irreducible to law. In this belief much which was once meaningless becomes intelligible, and a scientific man's faith is not staggered by the fact that much as yet remains outside, which science has not explained. On the moral side also we start with an "act of faith," a postulate of our moral nature, that God is good, and cannot be the cause of meaningless and unnecessary pain. And our faith is not staggered by much which seems, as yet, like useless suffering. Even if Darwin's

mature judgment that on the whole "happiness decidedly prevails" were not true, we should still believe in the goodness of God, in spite of all that seems to contradict it, and look forward to the time when our children, or our children's children, will see clearly what to us is dim or dark.

Man's Place in Nature.

4. We come now to that which most people feel to be the real difficulty in the way of accepting Darwinism. No well-instructed Churchman supposes that the Faith of Christ stands or falls with the theory of special creations, or that the existence of God is less certain because we have learned that the witness of conscience is necessary to interpret the witness of nature, and that physical science by itself can tell us less than we thought about the Personality and the Love of God.

But Darwinism means a great deal more than the substitution of derivation for special creation, or of the new teleology for the old argument from design. It means a new view of man, and his place in creation. Darwin foresaw this from the first, and in the "Origin of Species" asserted his belief that "much light will be thrown on the origin of man and his history."* Now, if this had only meant a chemical analysis of "the dust of the ground," out of which man was formed, if,

* p. 428.

like Matthew Henry, Darwin had assured us, on grounds for which, indeed, no evidence is given—that the dust was “not gold dust, powder of pearl, diamond dust, but common dust: dust of the ground;” “not dry dust, but dust wetted with the mist which went up from the earth,” it is clear religion would have felt that it had lost as little as science would have gained. But Darwin’s theory connected man with the higher *vertebrata* by analogies as strong as those which made other species descendants from a common stock. This was the secret of the opposition to the “Origin of Species.” It was not so much what was stated, as the obvious implications of the doctrine, which men shrunk from. Darwin, who had nothing of the defiant arrogance of some who speak in his name, was even accused of dishonesty in not clearly stating at the outset the bearing of the doctrine on man. And his volume on “The Descent of Man” was his answer to the charge. But his letters show how fully he realised the consequences of his theory from the first:—

“I am deeply convinced,” he wrote to Lyell, while revising the proof sheets of the “Origin,” “that it is absolutely necessary to go the whole vast length, or stick to the creation of each separate species.”* “I can see no possible means of drawing the line and saying, Here you must stop.”† “I believe man is in the same predicament with other animals. It is in fact impossible to doubt it.”‡

* “Life and Letters,” II., 165. † II., 171. ‡ II., 256.

For the scientific acceptance of the theory, as Darwin says, "*ce n'est que le premier pas qu'elle coûte*,"* but for people generally, who judge a theory by its consequences, not on its evidence it is, as he says of Carpenter, "the last mouthful that chokes."† Of course, as he admits, it is open to every one to believe that man appeared by a separate miracle,‡ but to hold the doctrine of special creation here and here only, is to ignore the arguments which, *ex hypothesi*, carried conviction everywhere else.

It was on this point that Darwin and Wallace parted company, though the divergence is commonly represented as far greater than it was. Wallace admitted the evolution of man out of a lower form, but contends, and this was what he calls his "heresy," that natural selection would have only given man a brain a little superior to that of an ape, whereas it is greatly superior. He therefore contrasts "man" with the "unaided productions" of nature, and argues that, as in artificial selection, man supervenes and uses the law of natural selection to produce a desired result, so "a higher intelligence" may have supervened, and used the law of natural selection to produce man. Whether, from the scientific side, this is rightly called a "heresy" or not, it is not necessary to decide; but certainly, from the religious side, it

* II., 235.

† II., 240.

‡ II., 264.

has a strangely unorthodox look. If, as a Christian believes, the "higher intelligence" Who used these laws for the creation of man was the same God Who worked in and by these same laws in creating the lower forms of life, Mr. Wallace's distinction, as a distinction of cause, disappears; and if it was not the same God, we contradict the first article of the Creed. Whatever be the line which Christianity draws between man and the rest of the visible creation, it certainly does not claim man as the work of God, and leave the rest to "unaided nature."

We have then to face the question, If it be true that man "as far as his corporeal frame is concerned" * is created, as other species were, by evolution from lower forms; if he was not, as we have been accustomed to think, an independent creation, but related through his whole bodily structure with "the beasts that perish;" if he was not an absolutely new departure, but the last term in a progressive series—how does this new view affect our Christian faith?

We might have been ready to answer, It no more touches the Christian view of human nature than a scientific proof, if it had been possible, that our Blessed Lord was Very Man would affect the truth of His Divinity. And the analogy is a very close one. It is not heresy to assert that Christ

* III., 140

is ἄνθρωπος, but that He is ψιλὸς ἄνθρωπος, Man and nothing more. Similarly, say what we will of the affinities of man's physical nature, it is only when we deny that he is anything more that we really degrade him. As Bacon puts it—

“They that deny a God destroy man's nobility ; for certainly man is of kin to the beasts by his body ; and if he be not of kin to God by his spirit, he is an ignoble creature.” *

Unfortunately, Christian apologists have missed an important distinction. They have not seen that their controversy with a Darwinian agnostic is a controversy with his agnosticism, not with his Darwinism ; with his limitation of all knowledge to the fact of sense, not with any doctrine he may scientifically prove as to the inter-relations of the facts observed.

We are constantly told that Darwinism is degrading, that it is unworthy of the dignity of man, that it is a “gospel of dirt.” If such a charge had come from a representative of those nations which held the descent of man from gods or demigods, it would have been intelligible enough, but it sounds strange in the mouth of those who believe that “the Lord God formed man of the dust of the ground.” Indeed, what in Darwinism is called a “gospel of dirt,” appears in the Bible as a “Gospel of grace.” We naturally, as Kingsley says, seek—

* Essay on Atheism.

"To set up some 'dignity of human nature,' some innate superiority to the animals, on which we may pride ourselves as our own possession, and not return thanks with fear and trembling for it as the special gift of Almighty God."*

But the inspired writers "revel in self-depreciation" that they may the more exalt the love and condescension of God. The moral, as distinct from the scientific, teaching of the Bible cannot be mistaken in this matter. Man, made in the image of God, inbreathed with the breath of life, is formed of the dust of the ground. God's method is always to choose "the base things of the world and things which are despised," and use them for his purposes. The chosen people traced their descent from "a Syrian ready to perish." They were the "fewest of all people," and constantly reminded of their origin. "Remember that thou wast a bondservant." "Look unto the rock whence ye are hewn, and to the hole of the pit whence ye are digged." And yet they were what they were, the destined repository of the oracles of God, and the religious teachers of the world. The Bible at least gives no colour to a view which refuses a degraded origin for man.

But Darwinism, dealing with man, as it is bound to do, simply from the side of his animal and corporeal nature, has done something to give man his true place in the physical universe. It has, by

* "Prose Idylls," p. 22.

the application of its own methods and its own tests, recognised him as the roof and crown of all things visible. And by so doing it has rendered any form of nature-worship henceforth impossible. The highest, or the least degrading of these, was the worship of the sun. When Anaxagoras ventured the speculation that the great god Helios was a mass of molten metal, he was condemned as a heretic. Science has trodden in his footsteps, and we know now that the sun is a very large ball of solid and gaseous matter, in a state of fierce incandescence, and "supported by involuntary contributions." It has been "found out," as completely as the Boxley road, when people were shown its works :—

"No man," as the Duke of Argyll says, "can worship a ball of fire, however big ; nor can he feel grateful to it, nor love it, nor adore it, even though its beams be to him the very light of life. Neither in it, nor in the mere physical forces of which it is the centre, can we see anything approaching to the rank and dignity of even the humblest human heart." *

Nor can we any longer worship organic nature. For we are ourselves, if Darwinism is true, the last term in the series. If man must have a visible god he must henceforth worship himself or something lower. For he is, as Prof. Fiske puts it, "the terminal fact in that stupendous process of evolution whereby things have come to be what they

* "Unity of Nature," p. 309.

are." * In Genesis he is made lord of the visible world, to have dominion over the fish of the sea, and the fowl of the air, and every living thing that moveth upon the earth. What Genesis speaks of as the will of God, Darwinism reads in nature as a fact :—

"Man," says Darwin, "in the rudest state in which he now exists, is the most dominant animal that has ever appeared on this earth. He has spread more widely than any other highly organised form, and all others have yielded before him." †

It is not true, then, that Darwinism degrades man, for in tracing his descent it chronicles his rise from the lowest origin to the highest order of being of which science has any knowledge, and "replaces him in his old position of headship in the universe, even as in the days of Dante and Aquinas." ‡

And what about the soul? If man, in his animal nature, was evolved from lower creatures, when did God "breathe into his nostrils the breath of life"? Was the soul, too, created by evolution, or was that at least a "special creation"? We are here, be it observed, going beyond the range of our subject, which was the relation of Darwinism to the Christian faith, and passing into a region where neither science nor religion has spoken. Dr. Pusey says "theology does not hold transformist theories excluded by Holy Scripture,

* "Idea of God," pref. xxi. † "Descent of Man," p. 48.

‡ "Idea of God," pref. xx., and cp. p. 162.

so that they spare the soul of man." But science spares the soul of man, just as it spares original creation, because it cannot have any knowledge of either. It can deny both. What is there that man cannot deny? It may even cover its dogmatic denial by a semblance of reason with the help of the major premiss: "What science cannot know cannot be known." From this, no doubt, the conclusion follows with logical necessity. But we answer with *negatur major*. With regard, however, to the question of the origin of the soul, as a theological problem, it is perhaps easier to say what is not true than what is. The soul cannot be a "special" creation, whether in Adam or in his children. There is no "species" of soul. We may call it, if we will, an "individual" creation, but is not all creation individual creation, from the religious point of view? And if so, it is a phrase which does not help us.

The difficulty, in reference to the child born of human parents, has often been discussed. Is its soul inherited like its bodily organism, or is it added to the body, coming, as it were, from without? The instincts of Christianity, rather than any formal decision, have throughout been against Traducianism, or the physical derivation of the soul. On the other hand, Creationism guards a truth which Traducianism loses, but at the cost of separating body and soul in a way which neither

the theology nor the science of to-day will find it easy to accept. The Master of the Sentences identified creationism with infusionism. *Creando infundit animas Deus, et infundendo creat.* But the words of the Bible, "God breathed into his nostrils the breath of life, and man became a living soul," are neither interpreted nor improved by the mediæval gloss. The very word *infusio*, and in a lesser degree, the barbarous word "insufflation," suggest that the soul is a *thing* which, at a definite, though unknown moment, is put into the body "like a passenger in a boat," as Aristotle has it. It follows from this view, that the *infusio animae*, if it takes place at all, must take place at the moment of conception, since, if the body exists before the advent of the soul, it is not a human body, the "reasonable soul" being as essential to the humanity as the "flesh." And if the analogy suggested in the Athanasian Creed justifies us in appealing to that greater mystery, on which Christian thought, in defence of the faith, has been compelled to speculate and define, we have to remember that it is heresy to assert that "that Holy Thing," which in the fulness of time was to be born of the Virgin, *became* at any moment the Word of God. In the history of the individual, so far as his physical structure is concerned, science can trace each step from the microscopic germ-cell to the fully developed man. If we believe that man,

as man, is an immortal soul, though we cannot say when he became so, or that, strictly speaking, he ever did *become* so, we need not be surprised to meet the difficulty again in the evolution of man from lower forms.*

But a Christian theologian is not bound to have a theory of the origin of the soul, either in the case of Adam or of his descendants, so long as he guards the fact that, by God's creative act, man's relation to Himself is unique among created beings, and that this unique relationship of man to God, is by the Bible and the Church, represented invariably as a relation of likeness. Of course, a Traducianist theory of the origin of the soul in the first man is impossible and inconceivable. For even if, in Adam's descendants, the soul were transmitted from parent to child,—a view which the Church has always shrunk from, though it is held almost universally by orthodox Lutherans,—it would not help us in the earlier problem, since it would be impossible for the supposed ape-like ancestor of Adam to transmit what *ex hypothesi* it had not. But any creationist theory, which is possible in the case of the individual child, is possible also in the case of the first man, and the two questions are so closely bound together, that we feel that a theory which is to be true of either must be applicable to both. We have, probably, as much to learn about the

* Cf. "Origin of Species," p. 612.

soul from comparative psychology, a science which as yet hardly exists, as we have learned about the body from comparative biology, and any theory of the origin of the soul in the individual, and still more in the first man, whether suggested from the side of theology or of science, must be tentative and provisional, and will be in danger of losing one truth in its anxiety to preserve another.*

Meanwhile, the fact to which Christianity is committed, and which is in danger of being sacrificed to half understood theories as to man's origin, is that he is what the brutes are not, a free self-conscious personality, made "in the image of God." What Christians have to contend for, is the reality of man's moral and spiritual nature, and the fact that man is man, whatever he came from, and however he came to be what he is. We do not say a man is not rich because we have found out how he made his fortune. We do not say the eye cannot see because we can trace it back to a speck of pigment sensitive to light. Whether God formed man literally "from the dust of the ground," or raised him by progressive selection to what he is; whether, in scientific language, man rose to manhood "by the final arbitrament of the battle for life;"† or

* Since writing these articles, a very interesting volume has been published by Prof. Le Conte, on "Evolution and its Relation to Religious Thought." Pp. 293-304 deal most suggestively with the question of the origin of the soul.

† "Descent of Man," p. 48.

whether, as Mr. Wallace thinks, there is a certain amount of "unearned increment" to be accounted for, man is still man, "the glory and the scandal of the universe." Darwin, feeling "the extreme difficulty, or rather impossibility," of conceiving the universe as not being the work of "a First Cause, having an intelligent mind in some degree analogous to that of man,"* is driven back into agnosticism by the question, "Can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?"† Yet when Darwin, in all the wealth of his scientific experience, and all the strength of his disciplined reason, gives us his matured judgment on the processes of nature, who would dream of saying, "How can I trust the conclusions of a man who was once a baby?" We trust him for what he *is*, not for what he *was*. And man is man, whatever he came from. And what is man?—

"Distinguished link in being's endless chain!
Midway from nothing to the Deity!
A beam ethereal sullied and absorpt!
Though sullied and dishonoured, still divine!
Dim miniature of greatness absolute!
An heir of glory! a frail child of dust!
Helpless immortal! insect infinite!
A worm! a God!"‡

"What a piece of work is a man," says Hamlet. "In action

* I., 312, 313.

† *Ibid.*

‡ "Night Thoughts," i.

how like an angel ! in apprehension how like a god ! the beauty of the world ! the paragon of animals ! And yet, to me, what is this quintessence of dust ? ” *

“ Man is a part of nature,” it has been said, “ and no artificial definitions can separate him from it. And yet in another sense it is true that man is above nature—outside of it ; and in this aspect he is the very type and image of the supernatural.” †

By nature we understand all visible things, including man so far as he can be observed by the naked eye or the microscope—his morphology, his physiology, his embryological development. But for a Christian this does not exhaust human nature. For him visible nature is the segment of a circle, “ we see but in part.” And the visible is not co-extensive with the known. Rather the ultimate explanation of “ the things which are seen ” is to be sought in “ the things which are not seen.” There are forces which refuse to be measured by “ foot-pounds,” facts which for ever must escape the microscope, realities which cast no bands upon the spectrum field, a Life which the scalpel can neither discover nor destroy. A Christian believes with Mr. Darwin “ that man in the distant future will be a far more perfect creature than he now is,” and finds it “ an intolerable thought that he and all other sentient beings are doomed to complete annihilation after such long-continued slow progress ; ” ‡ but he holds it in a different way and

* Act. ii., sc. 2. † “ Unity of Nature,” p. 308. ‡ I., 312.

on different grounds. And, believing in the truth of man's divine nature, he can watch without anxiety, not without interest and gratitude, the work of those who are showing us man's place in the physical world. Darwin tells us that, as he lay on the grass on an April morning, at Moor Park, amidst the joy of opening spring tide, he "did not care one penny how any of the beasts or birds had been formed." * Amid the supreme realities of the moral and spiritual world, or in the devotional study of the Word of God, it becomes a matter of relative unimportance to a Christian whether he is to trace his pedigree back directly or indirectly to the dust. For it is God's world after all. We believe in the resurrection of the body as well as the immortality of the soul. That which is material is not "common or unclean :"—

"What we are," says Kingsley, "we are by the grace of God. . . . St. Francis called the birds his brothers. Whether he was correct, either theologically or zoologically, he was plainly free from that fear of being mistaken for an ape, which haunts so many in these modern times. Perfectly sure that he himself was a spiritual being, he thought it at least possible that birds might be spiritual beings likewise, incarnate like himself in mortal flesh ; and saw no degradation to the dignity of human nature in claiming kindred lovingly with creatures so beautiful, so wonderful, who (as he fancied in his old-fashioned way) praised God in the forest, even as angels did in heaven." †

With regard to all this higher side of man's

* II., 114.

† "Prose Idylls," pp. 24, 25.

nature, Mr. Darwin was an Agnostic. He uses the word more than once of himself, and yet, with that transparent honesty which characterises all he did, he admits the difficulty, as well as the unsatisfactoriness, of his position. There was a time when men dared to say that because the presence of sin veils the knowledge of God, therefore they who do not accept Christianity in a Christian country must be guilty of secret, if not open, sin. That phase, thank God, has passed. And then—that men might have a theory—they talked of intellectual pride. Intellectual pride, which is self-assertion, no doubt obscures the vision of God. It is as much a rejection of God as a sinful life is. But dare any one say that loss of faith, or the inability to receive it, must spring from one of these two causes—immorality or intellectual pride? We believe it is impossible to read Darwin's "Life and Letters" without noticing, as the most striking characteristics of Darwin's mind, his intense modesty, his self-forgetfulness, his shrinking from popularity or applause, while gladly welcoming the testimony of those who were competent to judge of the truth of his work, his devotion to truth as shown by the weight he gave to unfavourable facts, his humility, his simplicity, his reverence. How could such a lovable nature, we are tempted to ask, have rejected Christianity? or, to put it differently, how could Christianity have failed to make good its appeal to such a nature as this?

In the whole three volumes there is nothing so intensely interesting as Darwin's account of his religious opinions and the steps by which he became an Agnostic. What was his religious history? His mother was a Unitarian, his father he describes as "a free-thinker in religious matters," though nominally belonging to the Church of England. Darwin himself was christened, and was meant to belong to the Church. But he was sent to a day-school kept by the Unitarian minister. His mother attended the Unitarian chapel, and took her sons with her. She died when he was eight years old, and after that he seems to have gone to church, and later on we hear of his intention of "going into the Church" *—an intention which was not abandoned till the *Beagle* voyage. His view of the ministry is incidentally given in a letter from Lima in 1835. "To a person fit to take the office, the life of a clergyman is a type of all that is respectable and happy." † During all this period he "had not thought much about the existence of a personal God." ‡ He had read Paley, but had taken Paley's premisses "on trust," § so that even his Unitarianism, which, as he tells us, his grandfather spoke of as "a feather-bed for a falling Christian," was hardly enough to break the fall. Under such conditions we are not surprised to hear that the intention to be a clergyman "died a natural death." ||

* I., 171. † I., 262. ‡ I., 309. § I., 47. || I., 45.

That idea abandoned, the two props on which his religion rested—Paley's "Natural Theology" and Pearson "On the Creed"—gradually gave way. The Paleyan argument disappeared with the abandonment of special creation; the Old Testament, from which Pearson started, seemed "no more to be trusted than the sacred books of the Hindoos."* "Disbelief crept over me at a very slow rate, but was at last complete. The rate was so slow that I felt no distress."† One of his difficulties is worth noticing as showing how little he had brought religious truth under that great conception of growth which dominated all his physical inquiries. It seemed to him "incredible" that, if God were now to make a revelation to the Hindoos, he would permit it to be connected with the belief in Vishnu, Siva, etc., as Christianity is connected with the Old Testament. Why? except for the very reason that makes it "incredible" that man should be evolved directly from a fish, and not "incredible" that he should be evolved from the higher vertebrates. He has organic relations with both, but these relations are not such as to make it indifferent from which he is derived.

It was not religion alone, however, that "died a natural death" in Darwin's case. It is almost pathetic to read his account of the way in which he fell out of correspondence with poetry and

* I., 308.

† I., 309

painting. Up to thirty or beyond, he delighted in both. Gradually they ceased to interest him, and finally they became positively distasteful :—

“I cannot endure to read a line of poetry : I have tried lately to read Shakespeare and found it so intolerably dull that it nauseated me. I have also almost lost my taste for pictures or music. . . . My mind seems to have become a kind of machine for grinding general laws out of large collections of facts, but why this should have caused the atrophy of that part of the brain alone on which the higher tastes depend, I cannot conceive. . . . If I had to live my life again, I would have made a rule to read some poetry and listen to some music at least once a week : for perhaps the parts of my brain now atrophied would thus have been kept active through use.”* “It is an accursed evil to a man,” he writes to Hooker in 1858, “to become so absorbed in any subject as I am in mine.”†

We shall not, we trust, be accused either of want of sympathy or want of charity if, in the light of what Darwin has told us of his religious history, we sum it up in the words, *the atrophy of faith*. That which Bacon sets first among the *Idola Speciei*, the tendency to draw everything round to the predominant pursuit, shows itself in as many forms as there are absorbing studies. A theologian or moralist rarely appreciates the strength of scientific evidence : a scientific man underrates the value of moral and spiritual forces. It is unfortunately always easy to discredit or ignore facts which are not *in pari materia* with those which lie

* “Autobiography,” I., 101, 102.

† II., 139.

nearest to our heart, or to offer, in terms of our own special study, an explanation which only explains the facts away. So the theologian will pooh-pooh scientific discoveries which do not readily and at once fall under his own categories of thought; and the scientific specialist will blandly put aside religion because he cannot without trouble relate it with what he can touch and taste and handle. To relate truths which belong to different orders plainly requires a greater effort than to relate those which belong to the same. Yet if the effort be not made the predominant study may still advance, but at a real, perhaps a fatal, cost.

The atrophy of faith is commoner than atrophy elsewhere. For men have come to think that while they must devote a lifetime to science, or philosophy, or art, or literature, they can pick up their religion as they go. And the result is that religion becomes like a tender exotic in their lives, and in the struggle for existence "the thorns spring up and choke it." Agnosticism is often an *ex post facto*, though honest, justification in theory for a religious atrophy which has already taken place in fact, just as men deceive themselves and appeal to "otherworldliness" to cover the neglect of daily duties. Christianity makes faith the Christian's *work*. It knows no short cut to spiritual truth, only the royal road of individual search and personal effort. But there are Agnostics like Darwin,

and there are Agnostics whose agnosticism is a thin disguise for plump self-satisfaction. There are evolutionists like Darwin, who cannot see their way to Christ ; there are also evolutionists like the great American botanist,* who has so lately been taken from us, and who speaks of himself as—

“One who is scientifically, and in his own fashion, a Darwinian, philosophically a convinced theist, and religiously an accepter of the ‘Creed commonly called the Nicene as the expression of the Christian faith.”

POSTSCRIPT.

AMONG the many difficulties which in the preceding articles we have not touched, there are two which will probably be present to the minds of many. Without attempting to discuss them we may state them, and suggest the lines on which, as it seems to us, they should be dealt with.

1. It may be said, “Then you are prepared to give up Genesis?” To which it may be answered, “Yes,” if by “giving up Genesis” you mean refusing to claim for it what it never claims for itself—that it is a prophetic anticipation of nineteenth-century science, and a revealed short cut to Darwinism. We cannot sympathise with those “reconcilers” who would read between the lines of the Mosaic history a meaning which, if it had been stated in plain words, would have put an infinitely

* Dr. Asa Gray.

greater strain on the faith of those for whom it was written than would be put on ours in the present day if we were compelled to accept as *de fide* a theory of verbal inspiration.

2. Then, it may be asked, "How about the Fall? Is that an allegory, or a metaphorical name for a step forward in evolution?" We answer briefly:—The Fall implies a change, and a change for the worse, in the relation of man as "a living soul" to his Creator—God. Positive science—and Darwinism is in every way bound by the limits of positive science—will neither help nor hinder us in discussing the relation between two terms, both of which are outside its range.

In a word, we are as little prepared to consult Genesis on the order of the palæontological series as to ask the high priests of modern science to solve for us the difficulties of our moral and spiritual life.

NOTE.—In a very kind and sympathetic review of the first edition of these Essays, a writer in the *Spectator* (April 27, 1889) speaks of this brief allusion to the Fall as "a deliberate evasion of a great difficulty." Whether it is rightly called an "evasion" or not, I do not care to ask, but it was certainly deliberate. At the time the articles on Darwinism were written, I hoped to have followed them up by a full discussion of both the difficulties here "evaded." I was unfortunately unable to do this in time for the publication of the "Essays," and the demand for a second edition has taken me by surprise. I must, therefore, still further postpone the discussion. Meanwhile I may say, that in a tract on "Evolution and Christianity," just published by Messrs. Rivingtons in the "Oxford House Series," I have, though necessarily in a brief and popular way, touched both questions, and at all events indicated the line of answer which seemed possible. See especially pp. 10-15, and the section on "Evolution and the Fall," pp. 30-36.

APPENDIX.

RECENT ADVANCES IN NATURAL SCIENCE IN THEIR RELATION TO THE CHRISTIAN FAITH.

A Paper read at the Reading Church Congress, 1883.

It would be obviously impertinent in me, in the presence of distinguished representatives of science,* to attempt to lay before this Congress the evidence for or against that great generalisation with which recent advances in natural science are more or less completely identified. The discussion of the evidence belongs to men of science, not to clergymen. We who are not scientific, or whose study of nature is limited to a narrow area, may, and perhaps must, have our own beliefs, our own individual opinions, on scientific questions. But my object in the time allowed me will be to show—

1. That whatever be the views of individual theologians, and whatever the final judgment which advancing science shall give, Christian theology *as such* is not necessarily connected either with evolution or the denial of evolution ; and

* Papers were read at the same meeting by Professor Flower, M.D., F.R.S., Pres. Zool. Soc., etc., Prof. Fritchard, D.D., and Mr. F. Le Gros Clark, F.R.S.

2. That there is in this doctrine of evolution much which ought to render it specially attractive to those whose first thought is to hold and to guard every jot and tittle of the Catholic faith.

Of these two theses I am persuaded that the first is infinitely the more important, indeed that, if it could be established, not only would students of nature be allowed, what they surely have a right to claim, perfect freedom of investigation within their own province ; but a doctrine, which is now weighted by supposed materialistic implications, would be gladly welcomed as an intelligible and reasonable account of God's creative activity in the world around us.

It is not to the point now to say whether theologians or men of science are most to blame for the confusions which certainly exist in this matter. If theologians have too often shown an unreasoning jealousy and suspicion of scientific inquiry, men of science have certainly not gone out of their way to make the real question at issue plain. When a champion of evolution* throws down this challenge to the Christian world—"Natural evolution, or supernatural creation of species—we must choose one of these, for a third there is not,"—we can hardly wonder that the devout and unsuspecting believer is caught in the trap of a false antithesis. *A third there is.* And we may call it indifferently supernatural evolution or natural creation. For the antithesis between evolution and creation is as false as, in the mouth of Haeckel, is the antithesis of natural and supernatural. Evolution, to make it a rational system, as much implies the presence in it of a power which is above nature as creation

* Haeckel, "Freedom in Science and Teaching," Eng. Tran., p. I.

does. For evolution *is* creation, and there is nothing *natural* which is not *supernatural*.

This is no mere paradox. The false antithesis lies at the root of many of our present difficulties. Even Christians have come to acquiesce in a sort of unconscious Deism. They are content to let the student of nature devote himself to the elucidation of natural processes, if he will not become a dogmatist by negation and say there is no supernatural. Such a division of territory the defender of science is generally willing to accept. "Give me," he will say, "the region of the knowable, the intelligible, and your fancy or your faith may revel as it will in the region of the unknown. Only there must be no cataclysmal irruptions of the supernatural into the region of the natural, no miracles, no Divine interferences with the course of nature—here at least all must be under the reign of law." And very soon those who have thus unwisely become the champions of the supernatural against the natural find that, as knowledge grows, they have to retire farther and farther back, and they either make frantic efforts at reprisals, or they settle down into a dull conservative protest against science as the enemy of faith.

Bishop Butler had a far truer view of what "natural" means. It is that which is "stated, fixed, or settled"—in other words, something which is familiar; and he adds, "from hence it must follow that persons' notions of what is natural will be enlarged in proportion to their greater knowledge of the works of God."* The distinction, then, is not absolute, but relative to our growing knowledge. To perfect knowledge, God's working in the physical and moral world must be all natural, or, if

* "Anal.," Part. I, ch. i.

you will, all supernatural. It cannot be partly one and partly the other, though to us the *quotidiana Dei miracula*, as S. Augustine calls them, seem to differ in kind from His less familiar workings. The moment we accept such a division as real, we practically recognise the existence of a power other than God; and then, while nature becomes to us the expression of order, law, stately and rational procedure, God is represented as the antithesis of this, as motiveless volition, as a principle of indeterminateness which it is hard to distinguish from caprice.

If we are ever to approach scientific problems in the spirit of Christian theology, we must, at the risk of paradox, declare that the common distinction between the natural and the supernatural is unreal and misleading. There are not, and cannot be, any Divine interpositions in nature, for God cannot interfere with Himself. His creative activity is present everywhere. There is no division of labour between God and nature, or God and law. "If He thunder by law, the thunder is yet His voice." The plant which is produced from seed by the "natural" laws of growth is His creation. The brute which is born by the "natural" process of generation is His creation. The plant or animal which, by successive variations and adaptations, becomes a new species (if this is true) is His creation. "The budding of a rose," it has been said,* "and the resurrection of Jesus Christ are equally the effect of the one Motive Force, which is the cause of all phenomena." A theory of "supernatural interferences" is as fatal to theology as to science.

We need hardly stop to remind ourselves how entirely

* W. S. Lilly, *Cont. Rev.*, 1883, p. 119.

this is in accord with the relation of God and nature, always assumed in the Bible. What strikes us at once, trained as we are in the language of science, is the *immediateness* with which everything is ascribed to God. He makes the grass to grow upon the mountains. To him the young ravens look up for food. He holds the winds in the hollow of His hand. Not a sparrow falls without His knowledge. He numbers the hairs of our head. Of bird and beast and flower, no less than of man, it is true that in Him they "live and move and have their being." "O Lord, how glorious are Thy works!" For the Christian theologian *the facts of nature are the acts of God*.

Both theology and science thus become, though in different ways, an *interpretatio naturae*. The province of both is to *rationalise*. Rationalism, when used as a term of reproach, is not the attempt to render God's works, in nature or in grace, intelligible to reason, but the refusal to recognize as His anything which we do not understand. Theology relates together all the acts of God, integrating them as parts in a great moral purpose; and science also relates together the acts of God, as seen in nature, finding in them a rational and intelligible unity. In theology the moral purpose is more prominent; in science the rational cohesion; and partisans generally fail to see that these are the convex and concave of truth.

If theology goes beyond science, it is because science has fixed its own limits in declaring itself *positive*. It accepts nothing as a fact which cannot ultimately be brought to the test of sensible experience. All facts so attested it seeks to relate into a whole, which is so far complete. But even in its ideal completeness it is

cradled in mystery, and encompassed by the world of the scientifically unknowable. "Science," to quote H. Spencer's definition, "is partially unified knowledge," but theology claims to be "completely unified knowledge." Materialism, pantheism, atheism, positivism, agnosticism, are the natural efforts of the reason to explain or put out of sight what is strictly by positive science unknowable. Only the moment a scientific man consciously or unconsciously formulates a theory which can properly be called by any one of these names, he transcends the limits of positive science at least as completely as if he had said, "I believe in God the Father Almighty, Maker of heaven and earth."

And scientific evolution is in every respect subject to the limits of positive science. It cannot, therefore, give an absolute "yes" or "no" to those truths which Christians hold dear, the existence of God, the reality of the human soul, and its real relation with God Himself.

Still there are two points in which evolution is thought somehow to come into collision with faith. It is popularly supposed (i.) to suggest an alternative for the original creation of the world by God; and (ii.) to materialise the soul of man.

(i.) As to *Creation*. "In the beginning God created the heaven and the earth;" "I believe in God the Father Almighty, maker of heaven and earth." What has evolution to say to this dogma? Absolutely *nothing*. If we exclude those pantheistic theories of development, which, though they have little attractiveness for the students of positive science, have from the days of Gnosticism to the time of Spinoza and Hegel denied the dogma of creation, evolution knows nothing of primary

and original creation. Haeckel, whom I quote because of his avowed and defiant opposition to Christian dogma, says plainly that "the process, if indeed it ever took place, is completely beyond human comprehension, and can, therefore, never become a subject of scientific inquiry." * Herbert Spencer, in discussing the "theistic hypothesis," creation by external agency (after ridiculing a view of world-manufacturing which no Christian would take the trouble to defend or refute), concludes that "the production of matter out of nothing is the real mystery," and this, like atheism and pantheism, is said to be "literally unthinkable." † Tyndall, again, says of the "evolution hypothesis," it "does not solve—it does not profess to solve—the ultimate mystery of this universe. It leaves, in fact, that mystery untouched." ‡ The difficulty of primary creation is, of course, independent of the question, what it was which was so called out of nothing; whether by the word of Omnipotence the whole world of organic and inorganic nature flashed into being; or whether, as S. Augustine suggested, the germs of all things were at first created; or whether that primary act concerned only an unconscious primæval mist, the infinite potentialities of which have developed, under the Hand of God, into the genius of Shakespeare and Raphael and S. Paul—the act is, in any case, as Mr. Spencer says, unthinkable, or rather, unimaginable. If it is ever made intelligible to us it must be from the side of metaphysics or theology, and not positive science. For science cannot relate two terms, one of which is unknowable.

* "History of Creation," vol. i. p. 8, Eng. Tran.

† "First Principles," p. 34.

‡ "Scientific Use of the Imagination," p. 49.

But though neither positive science nor evolution touch the original creation of the world by God, it would be idle to deny that they can create a prejudice for or against the Christian dogma. And here, strangely enough, evolution appears on the Christian side. For if positive science, by its teaching as to the indestructibility of matter within experience, creates a prejudice against any original creation, evolution, the greatest inductive generalisation of positive science, creates a prejudice in its favour. For it is "unthinkable," I would rather say, without analogy in experience, that a primal unity should have existed from eternity as a barren unity, and then at a point in time, however far back, begun to differentiate. A true development implies a *terminus a quo* as well as a *terminus ad quem*. If evolution is true, an absolute beginning, however unthinkable, is probable—the eternity of matter is inconsistent with scientific evolution.

(ii.) And then as to *the human soul*. Even Dr. Pusey allows* that "theology does not hold the transformist theories excluded by Holy Scripture so that they spare the soul of man." The question of Creationism and Traducianism is indeed outside the limits of science. In the language of evolutionists, it was a question of ontogeny, not phylogeny, and it dealt with the soul as a spiritual substance, which science cannot do. No doubt a man who could say, "I have swept the heavens with my telescope, and I have found no God," would be capable of saying, "I have examined the human body with the microscope and have seen no soul." And he would have uttered another scientific platitude. But when the Church refused the Traducianist theory, it

* Sermon, "Unscience, not Science, adverse to Faith," p. 14.

plainly declared its belief that the difference between man and brute was *infinite*. The *infusio animae* implies at least this, that man as distinguished from the brute is in a conscious relation with God ; that the animal nature of man, however close its affinity with the brute, is organic to spiritual powers and processes of which God Himself is the Object. The reality of those powers and processes, like the original creation of the world, is proved by methods other than those of positive science. It contributes nothing to the question for science to show that the human embryo is at a certain stage hardly distinguishable from the embryo of a brute, if each is what it will become, and the embryo of a brute will not become a man. And if it can be shown that historically man is developed from the anthropoid ape, it no more proves that he is nothing but an ape, which is the common and illogical conclusion, than does the phrase, "Dust thou art, and unto dust shalt thou return," prove that man did not, by the will of God, become "a living soul."

The question, then, is narrowed down to this. Man is what he is, whether God's creative power proceeded by steps and "levels of creation," or by an "inclined plane." What, then, was the *modus creandi* which God employed in the creation of those various forms of being of which, on any showing, man is the highest? Of the "carpenter theory," over which some scientific men make merry, I will say nothing, but that it may be safely left to the defence of the Freemasons. We are, therefore, left to choose between what is technically known as *special creation*, the creation, that is, of species which have no intelligible relation to one another, and *evolution* or *derivation*. But *theology is bound up with neither*. The original creation of the world by God, as against

any theory of emanation, is a matter of faith. The existence of the soul—*i.e.* the conscious relation of man with God,—lies at the root of all religion. Guard those two points,—and they are both strictly beyond the range of inductive science,—and for the rest, we are bound to concede to those who are spending their lives in reading for us God's revelation of Himself in nature, absolute freedom in the search, knowing that truth is mighty and must in the end prevail.

II. If we could be convinced that it is not evolution but the theories, which unbelievers base upon it, that are opposed to faith, it is surely wonderfully attractive in itself, and especially in our age. This is my second thesis. "By faith we believe that the worlds were framed by the word of God." So much He has revealed to us. But how He wrought, and what was (I say it reverently) the plan on which He wrought, this He has left us to discover from the work itself. More than that, He has implanted in us a principle which will not rest till it has asked and answered the question, How? and Why? So imperious is this instinctive tendency to relate God's acts to one another, and to find a meaning in them, that the very thing which science, by its own cautious methods, is slowly and surely doing, the common reason of common men, from the mere fact that reason is a relation-giving impulse, is doing unmethodically. In uncritical days, before reason learns to distrust itself, the relations it establishes, the explanations it accepts, are childish and anthropomorphic. Though they may claim and even get the sanction of religion, they are often "fond things vainly invented and grounded upon no warranty of Scripture, but rather repugnant to the Word of God." Such was

the view of that great philosopher of old, who, in sheer despair of finding the harmony, the rational unity, which he sought in the discordances of nature, likened God to a child playing at draughts. Such was the view of those who in scholastic days thought to see the mind of God reflected in the little world of their own purposes and plans. And such is the view of those now who, like the Jews of Christ's time, attempt to explain the mystery of suffering and pain by rough-and-ready theories of Divine retributions.

But we are living in agnostic days, when reason seems to be disappointed and baffled in the search for God; and the great and pressing need is, not to teach men the limits of human knowledge, but to restore the belief that real knowledge, the knowledge of God and His working, is possible. And evolution is doing this. We may not forget that the very man who formulated for us the doctrine of an unknowable God is spending his life in showing us that God is knowable, is revealing Himself to us in nature in language that we can understand. It is we, the theologians and the clergy, who are preaching an unknowable God, when we think to magnify Him by showing that He is unintelligible. *Credo quia non rationale* is but little removed from *Credo quia absurdum*.

We talk about *the unity of Nature* and the *Divine plan*. We talk about *the Omnipotence and Omnipresence of God*. See those truths as they are illumined by recent discoveries which have been made under the guidance of the evolution clue. See how the vegetable and the animal kingdom work into one another, each modified by the other, each perfected by the other. All the division of labour, which has been necessary in the study

of nature, has only brought out more wonderfully than ever the *unity of nature*.^{*} Where is the line which once separated the chemistry of organic and inorganic matter? Where is the line which once separated the animal, which could assimilate foreign substances, and the plant which, it was supposed, could not? There are gaps in our knowledge yet. The problem of archibiosis or archigony is not solved. The balance of scientific authority is against the origin of life from dead matter. And there are, positively, people who cling to this gap in our knowledge as if it were the stronghold of faith. Yet S. Thomas Aquinas believed in what is now called archibiosis, and it did not shake his faith.

Then think of what we know of *the unity of the Divine plan*. See how the science of embryology has lighted up that mystery of "how the bones do grow in the womb of her that is with child." The fact that man is, in his embryonic history, a microcosm of the lower creation, while yet he is, what he is, greater than all, is a new proof of the unity of the Divine plan, and the unity of nature is significant of the unity of God. The unity and intelligibility of nature are indeed correlative terms. You destroy its unity, just in so far as you destroy its intelligibility. Not that either the intelligibility, or the unity of nature, is proved by science. They are *assumed*, and the assumption is the grand initial act of faith with which science starts. Even where, as yet, we have failed to understand God's working, the motive power of science is its unwavering faith in the essential kinship of man with nature, and the ultimate intelligibility of that which S. Paul did not shrink from calling τὸ γνωστὸν

^{*} Cf. Sir James Paget's address on "Theology and Science" (Rivingtons, 1881).

τοῦ θεοῦ—that which is knowable of God in the world of visible things.

Once more, it is a platitude with theologians that there is no such thing *as chance in nature*—nothing that is outside the hand of God. Read that truth in all its universality and minuteness as it is set forth in the doctrine of evolution. Nothing is there in the shape or texture of a leaf, nor in the colour of a petal in a flower, nor in the delicate and ever varied pencilling of the butterfly's wing, nor in the form and habits of some beast of prey, which has not its meaning, its essential causal relationship with the environment, the universe of God.

I see not what there is in the theory of special creations which we can set off against these things. That theory refers everything immediately to the will of God. Yes, but in doing so it makes that will, if not irrational, autocratic, arbitrary, unintelligible. It is like the pious confession of ignorance with which we are familiar in the verdict of a coroner's jury—"Died by the visitation of God." Every death is the visitation of God, and it is not less so because we can interpret God's action in the light of His other works.

If some scientific men who believe not in our faith have used the doctrine of evolution as a lever against Christianity, it is neither necessary nor wise for Christian men to blame evolution as the cause. We may learn a lesson from a little-read page of mediæval history. When in the thirteenth century the Arabian heretics brought the Aristotelian logic and metaphysics to bear against the faith of Christendom, the Church wisely removed the prohibition which rested on the works of the great pagan; S. Thomas Aquinas fought the Mahometans with their own weapons, and Aristotle

